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A STUDY OF CHILDREN WITH REFERENCE TO ENTEROPTOSIS *

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If we examine a large number of women with reference to visceral prolapse, we shall find that we may divide them roughly into two groups: first, those who were originally of vigorous build and whose organs were normally or nearly normally placed, but who have given way to child-bearing, excessive hard work or other untoward influences and now present, aside from certain well-marked outward physical signs, more or less sagging of some of their organs; and, second, those who are of the true or essential type, in whom certain fundamental defects in constitution play the chief rôle in causation. For the sake of clearness in this study we shall dismiss the former division, with the brief statement that the prolapse in this class is seldom or never excessive, whereas in the essential or primary form we find it of varying but often of extreme degree. It might be added that the external physical manifestations of the two are very different. The two types often blend and yet the purer forms of each present so many points of difference as to make a clear distinction necessary. I am basing these seemingly dogmatic statements on a study of some four hundred women, a summary of which I presented before another section of this society one year ago.[1] My own interest in this subject has been that of a gynecologist.

The first impression that we get of the enteroptotic woman of the true or essential type, as seen in adult life, is that of frailness, expressed in the contour of her form and often in her features. She is slight and angular and has but little adipose tissue; her muscles are thin and there is almost invariably a laxness and softness of her tissues. These and other structures of the body, including the bones, give one a sense of underdevelopment and a lack of vigor. These may be designated as the fundamental characteristics of the habitus. Associated with and largely dependent on these characteristics, one notes in such an individual that the neck is long, the chest undersized and showing distinct signs of collapse—that is, it is shallow, the upper ribs lie far apart, the lower ones slant downward and inward, lying close together, and there is a distinct lessening of the capacity of the thoracic abdomen. The abdominal walls are soft and lack resistance, and there is a tendency for them to bulge forward. This bulging is rarely present to any marked extent in the nullipara and in a large number of cases it is practically lacking altogether; in the parous woman it is, however, oftener present. The changes in the chest and upper abdomen take place, largely at least, during the growth of the child to maturity. They are permanent changes; at least, they are the most difficult of any material correction. Such women are peculiarly apt to suffer from muscular insufficiency; that is, their muscles are unable to meet the demands on them. It is very apparent in the lessening of the lumbar lordosis, in the rounding back, the forward droop of the shoulders and, not infrequently, in weak foot. The insufficiencies are not always conspicuously present and, generally speaking, are to be looked on as signs of fatigue. They are as a rule less permanent in character and are frequently bettered as the woman improves in health.

I do not wish to go into the symptomatology more than to say that such women very often have good health in the ordinary meaning of the term, but that they, as a class, have less resistance than more vigorous women and are peculiarly apt to give way to overwork, care and responsibility, child-bearing, an indoor life or poor food. Under such conditions they are brought quickly to a state of fatigue, of lowered nutrition and an abnormal mental condition. They develop pain in the back and groins, a feeling of weight and bearing down in the lower abdomen, disturbances of digestion, menstruation and urination and a long series of psychoneurotic disturbances. It may, in fact, be said that the enteroptotic woman, when once her equilibrium is disturbed, develops symptoms that may usually be classified under the term neurasthenia. It is because of the frequency of this occurrence, and the difficulties encountered in seeking to improve such patients, that we are led to make a close study of enteroptosis from all standpoints.

If we inquire into the early history of such women we shall find that, in all the well-marked cases at least, the condition can be traced to early childhood;[2] that is, they will tell you they were thin, frail and perhaps more or less nervous, even at that early period. It was with the idea of learning more of this phase of the problem that I began some time ago the study of children.

W. J. Butler[3] presented before this section at its last meeting a most excellent paper on this subject, based on an examination of 155 children; my findings agree in the main with his.

My own study is based on the examination of 109 female children ranging in age from birth to thirteen years. The height was obtained and, following the routine used with adults, the size of the middle zone of the trunk was estimated by obtaining the index of Becher

* Read in the Section on Diseases of Children of the American Medical Association, at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

1. THE JOURNAL A. M. A., Nov. 26, 1910, p. 1860.

2. That there is here a marked hereditary tendency to assume this habitus may be learned by making inquiry of such patients. I obtained information on this point from some 300 women and found the immediate progenitors to be of similar type in most of the well-marked instances.

3. THE JOURNAL A. M. A., Dec. 31, 1910, p. 2279.

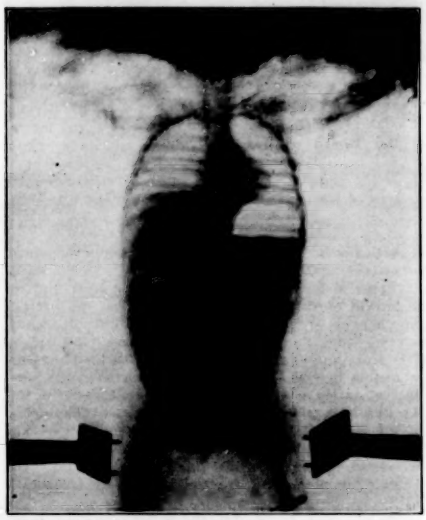

Fig. 1 (B. P.)—Healthy infant, aged 14 months. Note cow-horn shape of stomach, outlined by mixture at the bottom and gas bubbles at the top. Note also its high position, well up toward the diaphragm, the lower border forming a gentle curve nearly on a level with the pylorus. Note colon (gas) in front of stomach, also shape of infant's trunk (spindle- or bobbin-shaped), large in the middle and tapering to either end. Upper abdomen is its roomiest portion.

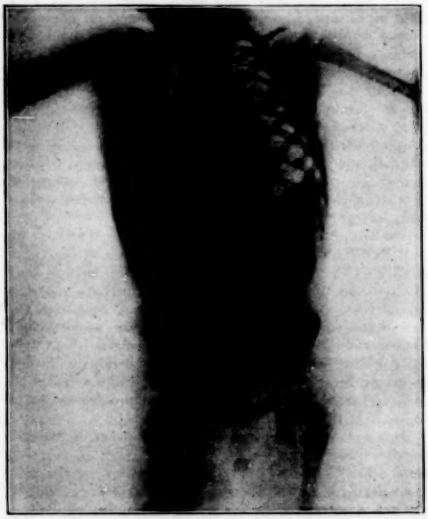

Fig. 3 (M. S.)—Vigorous child, aged 3 years. Exposure twenty-four hours after taking mixture, and mixture repeated before exposure was made. Relation of stomach and colon well shown. Note that the stomach and colon are well up in the abdomen and that both correspond in shape and position to the normal adult organs.

and Lenhoff.[4] After this the general state of nutrition was observed, the attitude of the child, the size and shape of the thorax (and the epigastric angle). I endeavored to palpate the kidneys and sought the position of the lower border of the stomach under gas[5] and percussion. Some of the examinations were incomplete because of circumstances. Photographs were obtained in a large number of instances and *x*-ray examinations were made in twenty-four cases. Much of this was done to familiarize myself with the peculiar characteristics of the child body at different ages—in this I was much helped by the excellent work of Stratz.[6] No prolonged attempt was made to obtain a detailed account of the previous state of health. It was obviously almost impossible to get this from the children themselves and the parents were rarely present. I realize that these examinations might have covered many more points had time and circumstances permitted. The material examined was largely in the D. A. Blodgett Home for Children in Grand Rapids. Through the kindness of Dr. Robert W. Lovett of Boston, I was also able to examine a considerable number of children in various institutions of that city.

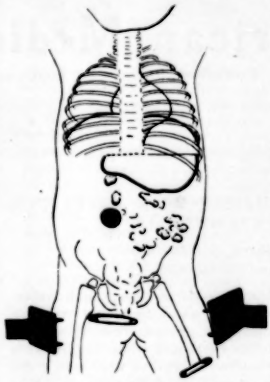

Fig. 2.—A diagram, traced from the radiograph shown in Figure 1. (See foot-note 11.)

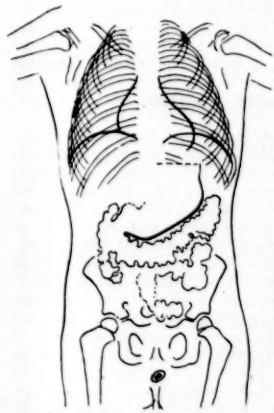

Fig. 4.—A diagram of Fig. 3.

In this series of examinations children of various states of nutrition and vigor were met with, as might be expected—children with slender frames, of little fat and small muscles were common. I was rather surprised at the number of children who presented signs of muscular insufficiency, round shoulders, slight lateral curvature and weak foot. In the thin, frail child

4. This index is obtained by dividing the jugulopubic distance by the waist circumference and multiplying the result by 100. This gives, in a general way, the relative capacity of the upper abdomen.

5. To the adult a dram of sodium bicarbonate in one-half glass of water is given, followed by one-half dram of tartaric acid in a like amount of water; to the child rather less is given, according to the size and age. Infants received none.

6. Stratz: Der Körper des Kindes, Stuttgart, 1909.

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Fig. 5 (Z. G.)—A child, aged 6 years, distinctly of the enteroptotic type. The stomach is high in the abdomen and its lower pole is distinctly hooked. This has a strong resemblance to the enteroptotic stomach of later life, but of mild degree.

Fig. 7 (A. B.)—Vigorous child, aged 8 years. Stomach almost ideal in form and position.

this was especially noticeable, though by no means confined to this class. The muscular insufficiency, so frequently accompanying the enteroptotic habit of adult life, is then by no means peculiar to later periods, but is often present early. In order to obtain information as to what constituted normal nutrition in a given instance, it was necessary to have in mind the varying contour of form present at different ages and to compare children of the same age and stage of growth. In the illustrations (Figs. 30 to 37) I have endeavored to bring out the slenderness, lack of fat and muscle, the delicacy of form and feature which characterized the frail child—primary characteristics of the enteroptotic habit of the adult.

The changes in the form of the trunk which normally take place in the growth from infancy to puberty were of much interest, since the capacity of the upper abdomen in adult life is undoubtedly a mechanical factor (although but one) in determining the position of the contained organs. The shape of the trunk is very different from that seen later on. In the infant and young child it is spindle-shaped, largest at the middle, tapering in either direction to the pelvis below and the neck above. This shape is most outspoken in infancy; as the child grows, the waist circumference diminishes relatively, but this form of trunk remains conspicuous up to the eighth year, the beginning of the bisexual age. At this time begins the widening of the pelvis and the infant trunk-form is soon lost. Not until late puberty, however, is there any marked narrowing of the middle zone. The prominence of the abdomen is most marked in infancy, but remains very conspicuous until about the eighth year, when it seems to lessen more rapidly. The shortness of the thorax, the relatively greater depth of it and the upper abdomen, as compared with the adult, are other features worthy of note and are common to all states of nutrition. Not until after the tenth year could distinct signs of actual collapse of the thorax be noted and this was exceptional then, even in very frail subjects. In a few instances, after approximately the tenth year, it was found smaller in size, showing a less vigorous development, and some of the collapse so conspicuous in the adult enteroptotic woman could be noted in these children at this age. In most children, frail or vigorous, however, up to about the age of 12 years, there was little change in the actual shape of the thorax and abdomen.

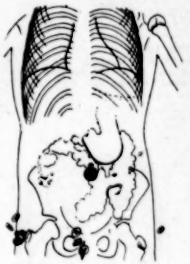

Fig. 6.—A diagram of Fig. 5.

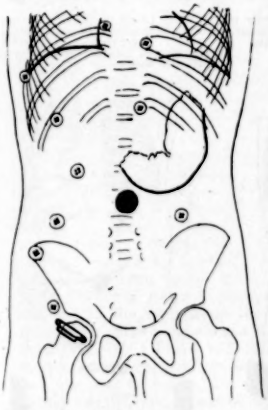

Fig. 8.—A diagram of Fig. 7.

Fig. 9 (T. H.)—Rather frail infant, aged 8 months. Note high position of stomach; shape not well shown. In original plate, colon, outlined by gas, shows in front of stomach. Incidentally, oblique position of heart is well shown.

Fig. 10 (M. L.)—Frail, poorly nourished infant, aged 14 months. Stomach well up in abdomen. Shape not well shown.

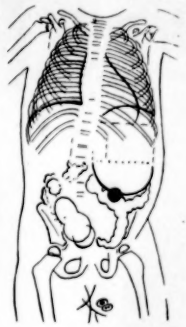

Fig. 15 (E. W.)—Well-nourished, healthy infant, aged 28 months. Stomach rather large, lower border rather low, shape apparently normal.

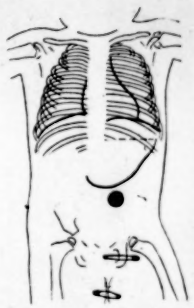

Fig. 16 (L. E.)—Child well nourished at present, aged 30 months. Shows distinct signs of rickets. Stomach well up in abdomen and normal in shape.

Fig. 11 (B. H.)—Healthy infant, aged 20 months. Cow-horn-shaped stomach well shown.

Fig. 12 (G.)—Healthy infant, aged 20 months. Stomach rather large. Irregularity of greater curvature, possibly due to peristaltic wave.

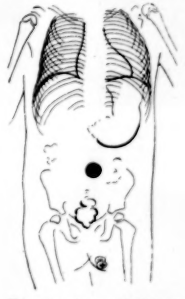

Fig. 17 (O. C.)—A rather frail child, aged 3 years.

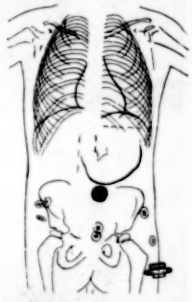

Fig. 18 (E. Z.)—A rather frail child (see Fig. 35), aged 3 years. In this is slightly indicated the hook so common in adult life with the elongated stomach of enteroptosis.

Fig. 13 (P. H.)—Healthy infant, aged 21 months.

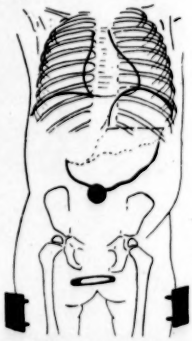

Fig. 14 (K. P.)—Healthy infant, aged 22 months. A large distended stomach; note that it pushes the left side of the diaphragm higher than the right.

Fig. 19 (D. V. N.)—Well-nourished, vigorous child, aged 3 years. Stomach rather large, lower pole lies rather low.

Fig. 20 (M. P.)—Well-nourished and vigorous child, aged 3 years. Stomach imperfectly outlined.

EXPLANATION: Each of these diagrams is made from a radiograph, just as in the case of Figures 2, 4, 6 and 8. See foot-note 11.

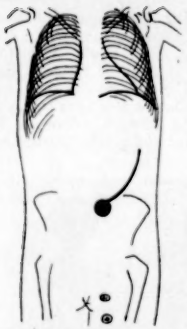

Fig. 21 (J. V. H.)—Well-nourished child, aged 4 years. Stomach imperfectly outlined; lower pole lies rather lower than usual.

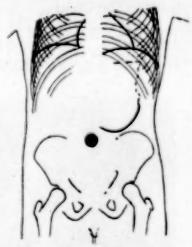

Fig. 22 (A. S.)—Well-nourished child, aged 7 years (Fig. 30). Lower pole normal in position.

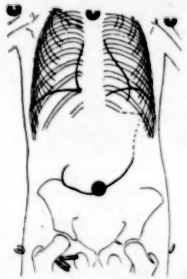

Fig. 23 (B. W.)—Slender child, aged 8 years. Stomach shows more signs of relaxation than any of the others.

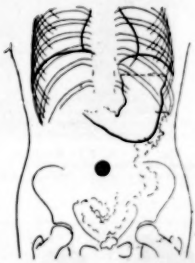

Fig. 24 (B. B.)—Vigorous child, aged 10 years. Stomach ideal in form and position.

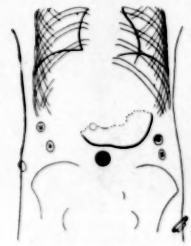

Fig. 25 (E. R.)—Very frail child (Fig. 36), aged 11 years. Stomach is normal in shape. Some flabbiness of stomach-wall may be conjectured by comparing with Figure 26.

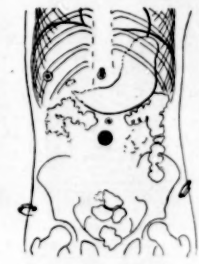

Fig. 26.—Same child as in Figure 25. Picture taken in lying position. Shows lower pole of stomach higher than in standing position.

If one has presumed that the marked visceral prolapse, so conspicuous in the frail woman in after-life, is present during childhood, he is destined to meet with a surprise when he comes to investigate the matter. In fifty children, aged from 3 to 12 years inclusive, I sought to palpate the kidneys. The method used was to turn the child well on its side on the table or bed and to reach into the kidney fossa as far as possible with the fingers. With a little patience this was satisfactory. Only such kidneys as could be distinctly felt to slip beneath the fingers were regarded as palpable. The tissues are soft and one can press deeply enough into the side to insure the non-presence of the kidney in an abnormal position. In none of the children (except infants) up to 7 years was the kidney palpable. In one child of 7 the right kidney, and in another of 9, the left was plainly palpable. In a girl of 12 (a very frail subject) the right kidney was palpable. Butler, in fifty girls, found palpable (movable) kidneys present in three, all 12 years or older. This does not necessarily mean that kidneys are never displaced in early childhood, but, when we compare these

Fig. 27 (D. S.)—Rather vigorous child, aged 11 years. Stomach well up; colon imperfectly outlined.

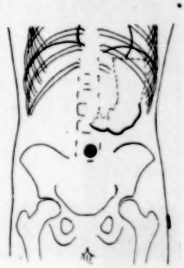

Fig. 28 (F. N.)—Frail child (Fig. 37), aged 12 years. Stomach, however, shows no relaxation.

results with those obtained by examining adult women,[7] the contrast is very striking and we may say that, ordinarily at least, the kidney that was palpable in later life was not so in childhood; in other words, the kidney was not congenitally displaced but became so. The body habit, I repeat, defined by the fundamental characteristics of frailness, lack of adipose tissue, and slenderness and laxness of tissues, is, however, found very commonly. Of the 109 subjects examined, thirty-nine were infants under 2 years, nineteen under 1 year, and twenty between 1 and 2. In the first group the liver could be plainly palpated in fifteen; the right kidney was palpable in five; the left, in three and both kidneys in two. In the second group the liver was examined in seventeen and plainly palpable in ten; but in the twenty neither kidney was palpable. This, of course, does not mean any congenital displacement of these organs, but, as Butler has pointed out, simply that they can be palpated at this early age because of the shortness of the thorax, the wideness of its lower aperture and the softness of the

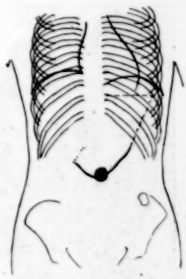

Fig. 29 (M. S.)—Vigorous child (Fig. 31), aged 12 years.

7. In a series of 100 women, taken at random, I found that the right kidney was palpable in thirty-five and both kidneys in eight. In frail, enteroptotic women the percentage would run much higher.

tissues. After the age of 1 year the palpable kidneys disappeared.

With gas I dilated the stomachs of fifty-seven of these children; this method I thought impracticable in infants and I relied on simple percussion. In all of the children the lower pole was found well up in the abdomen. In fact, in none was there any lowering of this pole which could safely be called prolapse; this was in marked contrast to the examination of adults.[8]

Fig. 30 (A. S.)—Normal child, aged 7, well developed and well nourished. Note contour of form and trunk and erect attitude, which is naturally assumed. Signs of weakness are wanting.

With Dr. Henry Hulst I examined with the *x*-ray the stomach and intestines of twenty-four children. It is to his painstaking and exact work that I am indebted for this unusually fine series of plates. The technic was as follows: The child was placed in the standing position, 5 feet, sometimes 6 feet, from the tube (which was back to the tube, the plate being placed against, but not pressed on, the abdomen. In these examinations a coin was placed over the umbilicus, but I would say in this connection that, in children at least, it forms a very imperfect landmark, since its relation to the spine was not a constant one. The coin might well have been dispensed with. We judged the stomach rather by its relation to the diaphragm, liver and pelvis. Zirconium

Fig. 31 (N. S.)—Healthy, well-nourished, well-developed child, aged 12. She stands easily in a normal attitude. Note shape of chest and trunk at this age, also beginning enlargement of pelvis.

Fig. 32.—From right to left: M. Z., E. W., J. M., A. S., P. C., aged 2, 6, 6, 7 and 8. The middle one is slightly frailer than the rest, but all are of vigorous type. Note amount of fat, good development and the few signs of weakness. Note also the wide epigastric angle, which is a constant one in childhood in all types. Some narrowing is occasionally found after 10 years of age in frail children, but this is not the rule. Narrowing is the rule in enteroptotic women and is an accompaniment of the underdeveloped, collapsed thorax.

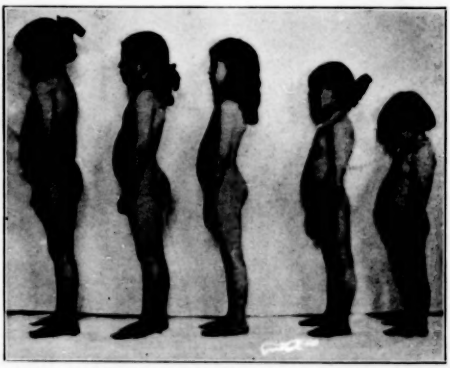

Fig. 34.—Same group as in Figure 32. Shows the prominent abdomen found in childhood. These are all vigorous children.

about on a level with the umbilicus) in order to eradicate as far as possible any distortion. The exposures were less than one second in duration. The child stood with its

oxid, mixed with chocolate, sugar and milk, we found a fairly palatable mixture and free from any nauseating or ill affects, a thing which cannot be said of bismuth. The child was given 8 ounces to a pint of the mixture, at noon on an empty stomach and the exposure made immediately afterward. In twenty-four hours another similar meal was given and a second exposure made. This was done, of course, to outline the stomach and colon together. The results were as follows: The stomachs, as outlined by the mixture, varied in size and

8. In 100 women examined by this method the lower pole was found below the umbilicus in fifty-two instances, at or above it in forty-eight, Surg., Gynec. and Obst., 1906, iii, 130.

shape. As contrasted with adults, the stomachs were well up in the abdomen and the hook at the lower pole, so common in the enteroptotic stomach of the adult, was seen in but few instances and then only in comparatively slight degree. The amount of gas in the stomach and intestines seemed to influence the size considerably, this being often changed at the second examination. This seemed to have little or no relation to the vigor of the child. We would naturally turn to the frail child to find the visceral prolapse which we seek, but even here, except in one instance

Fig. 33 (M. S. and M.)—Shows difference in shape of trunk in infancy (16 months) and at 12 years. Note also the length of thorax and epigastric angle in the two.

Fig. 35 (E. Z. and M. S.)—Both children aged 3, the one of vigorous, the other of frail type. Note slenderness of form and lack of fat in the one.

(Fig. 23), it was but slightly indicated as compared with the frequently found outspoken abnormalities of later life.

The adult stomach in position and shape stands in a more constant relation, I believe, to body habit than the kidneys and, therefore, merits our study. What shall we regard as the normal stomach? I believe with Hulst[9] and Holznecht[10] that the small cow-horn-shaped stomach, with its lower border about on a level with the pylorus, must be regarded as such. In this connection we must dismiss from our minds the matter of function and regard only the anatomy, for the two stand in no constant relation. It not infrequently happens that stomachs that are elongated, even to extreme degree, will care for food in apparently a normal way. If we disregard function and think only of the anatomy we shell be arguing to the same point. Personally, I rather like the term "ideal stomach" to designate the small cow-horn-shaped stomach just mentioned. It is mechanically correct and is the form from which all others seem to deviate. As Holznecht has pointed out, this is the only constant form of stomach found, the more frequent form with the greater curvature dipping downward in a hook varying widely in the degree of this formation and forming a series of gradations, some of which approach the "normal." He points out also that this is the stomach that should perform its functions most easily; an engineer would build it so. It might be added that the "ideal stomach" is found only in vigorous individuals (adults) and that the elongation found in others varies much according to the degree of frailness and relaxation which they present. If now we add the fact that the "ideal stomach" is the common one of infancy and childhood (or, in other words, that the elongated, stretched-out stomach of later life was orig-

Fig. 36 (A. B. and E. R.)—Two children, aged 11. Contrast contour of form, amount of fat, muscular development, bony frame and size of chest.

Fig. 37 (F. N.)—Frail child, aged 12, showing muscular insufficiencies and slight lateral scoliosis. Chest remains distinctly behind in development.

9. Hulst, H.: Physiol. and Surg., Ann Arbor, Mich., September, 1905, p. 391; Arch. Phys. Ther., January, 1906.
10. Holznecht, G.: Berl. klin. Wchnschr., Jan. 29, 1906, p. 127.

inally of this form) we have another argument for the establishment of this conception.

The results of these *x*-ray examinations may be best seen by examining the reproductions of the plates.[11] The youngest child examined was 8 months old, the oldest 12 years. In some of the younger infants the mixture seems to have escaped quickly into the small intestine. In one or two the transverse colon, as outlined by its contained gas, lies apparently in front of the stomach. We found this in infants, but never in older children. In the younger infants the type of stomach prevailing was of the cow-horn-shape. Not until the age of 3 years did we find evidence of the hook at the lower pole, and then only in slight degree. During the whole of childhood, although the stomach was sometimes large, it was found, comparatively speaking, well up in the abdomen, the lower pole showing but little tendency to hook. (Figure 23 forms an exception to this.) Changes in stomach-form in successive pictures were sometimes seen, especially in the older children, but only when well indicated were they considered as demonstrating some relaxation of the wall. In the adult the more nearly the ideal the less can such changes be demonstrated. This applies to the changes brought about by shifting of body position as well as those made by varying amounts of stomach contents.

We may conclude a number of things from this study. The enteroptotic habit of adult life finds its counterpart in the frail child presenting the same fundamental characteristics: Frailness, lack of fat, slenderness of muscle, lack of vigor in body development. Any actual collapse of the thorax or diminution in the capacity of the upper abdomen is seen only in older children, and then only exceptionally, even in frail subjects. The muscular insufficiencies of later life in enteroptotic women are common in frail children. The prolapse of kidneys, stomach, colon and intestines which accompanies the enteroptotic habit of adult life is not outspoken in childhood (under 12 years) except in rather rare instances, and then usually late in that period.

In my opinion, the habit itself is of far greater importance to the enteroptotic woman than the prolapse of the viscera which accompanies it; at least, in the vast majority of instances. Her lessened ability to fulfil the duties imposed on her, the limitations placed on her by her lack of vigor and the unhappiness which such women in a state of fatigue endure are serious matters with her. I believe that more might be done in the way of prevention. The frail child, it seems to me, should be more clearly recognized as an entity and its tendencies more intelligently fought. In a large number of instances, at least, I believe it possible to maintain a fair state of nutrition in such children and to direct them to a more vigorous womanhood. When this is uniformly done, we shall have accomplished much and shall do away, to a certain extent, with the enteroptotic, neurotic women, who form such a problem in every-day practice and in almost every specialty.

ABSTRACT OF DISCUSSION

DR. WILLIAM J. BUTLER, Chicago: I do not suppose any one in this country has done more than Dr. Smith to call our attention to enteroptosis and to put it on such a basis as to make us realize just what it means. Enteroptosis in the adult may be divided into two types, the congenital type and the acquired type. The acquired type is never seen in children, and is the result of the laxity of the tissues, a muscular insufficiency. The congenital type is quite commonly found in children, in fact, one often wonders whether it may be regarded as an abnormal type. In referring to types I refer to the body form of the individual. In children there is no doubt we can see right from the earliest period, examples of the enteroptotic habit, i. e., the body form. It does not show itself frequently, however, until the child begins to grow and develop. In discussing enteroptosis we must keep in mind not merely the matter of organ displacement. The organ displacements are merely the consequences of this body type. As a matter of fact, what would be enteroptosis in later life is a condition that is constantly present in infants, i. e., so far as the palpability of the liver and kidneys is concerned. The stomach, however, is not below the umbilicus. The enteroptotic body form of the child begins to show itself quite distinctly just before puberty, from the tenth year onward; i. e., the characteristic frailty of structure and the lack of tone. The organ displacements, however, are not to be found, except in exceptional cases, much before the twelfth year. I noticed that in Dr. Smith's cases, as in some of my own, the kidneys become palpable about the twelfth year. They may be found exceptionally about the tenth year. This is likewise true in stomach displacement. I did not find any below the umbilicus until about the twelfth or fourteenth year; then occasionally I found one. A thing that particularly strikes the gynecologist is that this matter of enteroptosis is one of the most serious problems that can possibly be considered because of the innumerable cases of ailing women in whom there is an enteroptotic habit which had its origin in early childhood and which is responsible for all their symptoms. In some of these patients it is surprising how long they can carry the organ displacement without symptoms; and in others it is equally surprising how marked the symptoms sometimes are with but slight displacements. The condition should be recognized early, and it is important that they should always be kept above par from the nutritional standpoint. This should help to prevent the development of their symptoms, which are of a neurasthenic character. These individuals are always of the neurasthenic type. In fact, it is sometimes a difficult question to decide what is the cause of their symptoms, the nervous instability or the enteroptotic habit, as they are associate conditions. The symptoms of which these patients complain do not occur until some other condition precipitates them, e. g., child-bearing, or a serious illness, or any prolonged physical or nervous strain. The prophylactic step is to keep these individuals in a high state of nutrition at all times.

DR. I. A. ABT, Chicago: Several years ago I read a paper on "Floating Kidneys in Children" at the Atlantic City meeting. One of the cases I described at that time was a little girl from the Orphans' Home. The kidney was excessively movable, descending down into the pelvis. Sometimes the ureter became twisted on itself and she was seized with violent colic. We applied a pad which she wore for a long time and she was relieved of discomfort. I have followed up this case. She is now 20 years old and I had opportunity to examine her recently and found that the kidney was no longer mobile and could not be palpated. I would suggest, therefore, that possibly some of these patients may recover spontaneously. Another point to which I would refer is that we are liable to fall into error about the size of the child's stomach. Not long ago, I saw a child at a hospital which had the symptoms of pyloric stenosis, though no tumor was felt, i. e., there was the characteristic vomiting and peristaltic wave. The case came to operation. On opening the abdomen, it was found that the stomach, after being emptied, was not nearly so large as had been thought. Therefore, I believe that in estimating the size of an infant's stomach, the organ should be examined after its contents have been evacuated as well as in the distended condition.

11. It would have been desirable to make direct copies, but these, in the ordinary half-tones, are so blotched and indistinct that drawings were substituted. Four of the plates are, however, offered. The drawings were made according to careful measurements, directly from the plates and give in a true manner the relationship we seek. In most instances but one plate of each child is given. The position of the colon is reflected quite closely in that of the stomach.

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LEGAL POWERS OF HEALTH DEPARTMENTS

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Generally health departments originate in times of emergency, as each new activity is the result of some unusual demand. This being true, we are prepared to find that health ordinances and laws are, as a rule, very unskilfully drawn. They fit much more accurately the basic community need than they do the technical requirements of legal procedure. Individuals are constantly battling to gain larger rights over the community, and each decision which is given them is used as a precedent on which others stand and battle for further limitations of the right of the community to protect itself.

For these reasons there is great need that health departments should have their laws and ordinances carefully studied by constitutional lawyers to make them meet the legal requirements as well as the sanitary and economic demands. Fundamentally, every man has the right to life, liberty and the pursuit of happiness, but no man should so exercise this right as to interfere unduly with the rights of other men. The dogma of liberty is a broad rather than a narrow, selfish or exclusively individualistic one. No man can use his property so as to interfere with the use of property by others. The right of improper use may mean temporary increase of liberty for him, but it means a decrease in general liberty and, ultimately, a decrease in the liberty of the individual who was given improper power.

On this principle of gaining liberty for the mass by differentiating between the proper and improper use of individual liberty there is based the great legal principle called police power. The basis of police power is that the welfare of the people is the supreme law. All health work is based on police power. Police power rests with the people themselves. In ordinary times and for ordinary matters, the people delegate the law-making functions to the national, state or municipal legislative bodies, the administration to administrative bodies, similarly divided, and the judicial functions to the judicial machinery. In times of great emergency, action lies with the people. Their rights are primitive and all-compelling; for example, mob and mass rule. This is because it is necessary that it should be so. The mass must be protected even though, in order to do so, it is necessary to neglect or even override the machinery devised to fit the usual demands. In ordinary times, police power by mob action would be useless or worse. Hence, it becomes necessary to create certain machinery called police-power laws, and these must conform to certain legal standards. There are three of these legal standards with such an abnormal development of the third that sometimes a fourth is added.

A. The condition which is sought to be met must be important. It must be causing hardship or harm more universal in character or more destructive to rights than the remedy which is sought to be applied. The difference must be material—it must be more than borderline. In making proof of the benefits of the remedy it is proper to lay stress on future benefits or accruing harm from no remedy. The inquiry, especially in health matters, should be certain to run deeply enough into the future to develop the merits of the case.

B. The remedy proposed must be reasonably adequate to meet the demands. A reasonable departure from this rule is proper, provided it takes proper account of the law of advancing standards, the principles being that perfect control and regulation can only be gained by stages. A law or ordinance which required radical changes as a single step would probably be held to be unreasonably stringent, even though the hygienist knew that it meant lives saved. Therefore, it is proper to have advancing standards.

As a part of the same principle it is proper to have one standard for future installations or performances and another for present or past installations and performances. Laws prescribing that new buildings shall have a certain proportion of area-ways and that old buildings shall be allowed to remain, if they conform to a lesser standard, are proper.

Laws allowing milk from tuberculous cows to be sold for human or hog consumption, for say three years and prohibited after that time, are proper on the same principle.

In order that this principle may be applied, it is necessary that the principle of advancement must be clearly a part of the law. For at most, it is nothing more than this: The second principle of police power, namely, that the remedy must be adequate, can be compromised only up to a certain point and for a reasonable length of time.

C. Health laws and ordinances must be reasonable. They must be reasonable in the directions indicated in A and B. In addition they must work no unreasonable hardships on the property or the rights which are invaded. Health laws can be proper and at the same time destroy or confiscate property, restrain freedom and liberty of action, imprison—or what amounts to the same thing—quarantine, and all of these acts without the right of trial by jury or review by court prior to the commitment of the act, provided it can be shown that the public good demands such acts. They are, however, properly subject for review subsequent to the act.

Such acts must always be reasonable in their every aspect. Where the need is not so great, the individual in the exercise of his liberty, and the owner in the control of his property, has the right to a reasonable opportunity to adjust himself to the requirements of the law and thereby to conserve his interests, in so far as they do not run counter to the general interests. From an abuse of, or rank and extravagant growth of, this last there has grown a line of procedure which is sometimes considered a fourth principle.

D. The individual or the owner must have due and proper notice. There is a basic principle of law that "ignorance of the law is no excuse for its breach." This principle is violated in requirement D. Yet the requirements of health concern themselves so closely with the intimate lives of men, the requirements are often so technical, the ultimate good of the mass is so difficult of comprehension by the average individual that it becomes just and fair that the individual should have due and proper notice. This requirement has been carried to the most ridiculous extremes. All that is required is that the notice should have been such that a man of average intelligence and alertness could have seen and understood.

In determining whether a man shall be excused for his ignorance, it is proper for the prosecution to put in evidence any bulletin, notice, rule or regulation and the effort made to publish such announcement, and also

whether the defendant belonged to any lodge, society or association when such laws were discussed or investigated; whether the defendant has agents employed to keep him posted on or advised as to laws; whether he personally or through his agents counseled in the formation of such laws. It is not necessary to show that he had knowledge of the law.

In a democracy, laws must always respond to the militant desires. As these vary over broad limits either the laws or their administration will vary. As health laws are so intimately concerned with the use of liberty and property, they or their enforcement represent the maximum of variation. As an illustration of an extreme right of this police power, we have the right to quarantine without trial by jury. Ordinarily, the right of liberty cannot be abridged except by a court procedure. Certain duties of health protection are not compatible with the operations of the machinery for abridging liberty. For example, a man with small-pox must be deprived of his liberty immediately after the diagnosis is determined or as soon as seems reasonably possible. The beginning of the detention cannot wait on jury trial. No other course is compatible with the rights of the mass to life, liberty and the pursuit of health. At certain times and in certain kinds of effort, governments exercising the functions of health protection must have autocratic and dogmatic powers.

In eminent domain there is recognition of the necessity of the limitation of the rights of property. Here, though there is recognition of the right of the mass to take from a man his property for the use of the mass, directly or indirectly, the right of eminent domain can be exercised only after legal process and with compensation. Police powers are much more arbitrary. In other functions of health work, particularly health conservation, the same right of summary action is not necessary. In physical welfare, the possibility of planning ahead increases and the right of summary action decreases. But in times of great emergency the rights are as primitive and all-compelling as in mob or mass rule. The mass must be protected regardless of any and every machinery devised to fit the usual conditions.

Health laws and procedures must take into account public sentiment. Hygienists know that the number of deaths from consumption is ten times as high as the number from scarlet fever; that consumption is communicable. Still public sentiment is not ripe for the use of controlling methods. Laws governing consumption become more acceptable year by year. Typhus fever is endemic in certain parts of Mexico, but laws for its control are not enforceable in Juarez just now. Cross the Rio Grande into El Paso, one mile away, and right of summary action would be upheld by courts and public sentiment. One year from now the same will be true in Juarez. Thus we see that, in practical operation, police-power health laws vary over a wide range.

POWER OF THE VARIOUS DIVISIONS OF THE GOVERNMENT

The National Government.—In all matters in which the constitution or its amendments give power to the national government, its powers are paramount. In such matters the state may make laws or the city may make ordinances which are in conformity with the national laws, but any laws or ordinances not in conformity with the national powers are invalid.

State Legislatures.—In matters not covered by national powers, and under ordinary circumstances, the people delegate their legislative powers to state legislatures and these in turn provide such administrative and judicial machinery as is not provided by the constitution of the state.

City Councils.—In matters affecting groups of people in a peculiar way—for example, cities, towns, villages and sanitary districts—the state legislature may delegate legislative power to the city councils, park boards, sanitary district boards and similar bodies. Such delegation of power is always specific and runs alone to those things which are designated.

The people through mass meetings, constitutions, state legislatures or city council may give to boards of health legislative functions. But these bestowals of legislative functions are limited by the limitations of the bestowers. For example, a mass meeting can act only in times of great emergency and therefore can bestow function only to meet great emergency. A state legislature can delegate only powers in accordance with the constitution of the state. A city council can give a board of health powers of legislation only on subjects on which the legislature allows the city council to legislate.

In addition, there must be the right to delegate legislative power. In the case of a state legislature it is assumed that the legislative body has every right of the people to legislate directly or indirectly, except where restrictions are placed by the state or national constitutions. Therefore, such legislatures have the right to create subsidiary legislative bodies except when it is prohibited by the constitution. On the other hand, city councils have not the right to create subsidiary legislative bodies except where their enabling acts specifically grant them such powers.

The need of elasticity in health laws, unless they are to fall into disrespect from disuse, demands that legislative powers be delegated so as to reach the administrative powers as closely as possible. A further need arises from the technical character of most of the points to be determined. Where a body of men without technical training undertakes to pass on technical questions, the laws passed are frequently unreasonable and unfair either to individuals or to the mass. They are encumbered by a mass of inelastic detail. They are a renaissance of the type of those old Roman laws which Justinian swept away.

Illustrations of existing delegations of legislative power no more demanded than delegation to health boards or departments are:

The rights of courts to make rules for internal government and external matters which are tantamount to legislation.

The creation of commissions on standards giving them the power to establish standards tantamount to legislation, such standards not to be confirmed by subsequent legislative act.

The creation of railroad commissions with both legislative and judicial functions.

The endowment of sanitary and park boards with legislative functions.

The charter creation in certain states of legislative power for health boards, e. g., New York and Ohio.

Such delegations of legislative powers have been upheld by the courts.

Every department or board of health has the right to make rules and regulations for the control of the men who work in the department—hours of work, method of inaugurating and continuing work, in fact, internal rules governing the officials and the work of all connected with the department.

Rules and regulations governing the work or living of the general body of citizens must conform to the legal principles of delegated legislative power which prevail in the community concerned.

Rules and regulations interpreting ordinances and laws and in conformity therewith are legal and proper when they are reasonable. Such rules and regulations are in accordance with two principles of police power. They are notices of the administrative interpretation of the provisions of such ordinances or laws; they are in accordance with the principle that police power comprehends the power, the means and the interpretation necessary to make the power operative. All rules and regulations are subject to judicial review as a part of the ordinances which they interpret and make operative.

It is not feasible to write into ordinances and laws all of the details required for police-power ordinances and laws. Ordinances and laws in which it is attempted to write such detail are never comprehensive enough for operation and, on the other hand, are always burdensome and impossible of exact application to the varying conditions which are offered. Therefore, conditions not being uniform, there grows up a variation in interpretation by administrative officials, which is, in fact, legislative in character, just the thing which the ordinances or laws sought to avoid. Making a necessary act an illegal act leads to irregularity and frequently dishonesty. Therefore, the only logical organization of any police-power board is on a semi-legislative basis. Such boards should consist of an executive or administrative officer and legislative members. Where such organizations are not now provided, the state constitutions should be so amended as to provide for them.

Care must be taken that charter and constitutional provision for health work do not elaborate in such detail that the great mass-right of protection through police power is abridged.

Any case in which the basis of power is police power must be tried on its merits.

The questions sought to be determined are:

A. Is there need for this act of the governmental agency? Is the act of this defendant prejudicial to the rights of the mass either immediately and directly, or indirectly or by example set?

B. Is there a reasonable protection of the rights of the individual as against the mass?

Neither of these questions can be determined except by testimony. Therefore, trial of police-power cases without testimony are not proper legal procedures.

The tendency of the law of precedents being to limit constantly the rights of the mass to protection, the increasing complexities of civilization making a conservation of the rights of the mass more imperative, some agency or activity must be created or made operative to attack certain so-termed health laws on the ground that they do not protect the mass—to the end that in the precedents there may be a proper protection of the rights of the people.

In most of the precedents now prevailing, the rights of the individual and his property are deified and the rights of the mass are minimized. The growth of protection against ill health is through the growth of public intelligence and in spite of the prevailing judicial decisions. The responsibility for these decisions is to be divided between lack of community view by the judges and lack of knowledge of legal requirements by health officials.

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NITROUS OXID AND OXYGEN ANESTHESIA IN MAJOR SURGERY *

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So much has been written lately in favor of gas and oxygen anesthesia that I feel called on to state in the beginning that I am in no way trying to discredit a method which I am using constantly and increasingly both in hospital and private practice, but merely to arrive at some conclusion as to its safety and freedom from after-effects in major surgery as distinguished from minor surgery and dentistry. By major surgery I mean, in a general way, serious operations lasting from, say, thirty-five minutes to two hours. It is on such cases that my experience with gas and oxygen is based. Examples are goiter extirpations, appendectomies, cholecystotomies, intestinal anastomoses, decortication of the kidneys, nephrectomies, prostatectomies, hysterectomies, etc.; operations which require prolonged anesthesia and in which the respiration under gas and oxygen undergoes marked reflex changes.

Most writers on this subject make the unqualified general statement that nitrous oxid and oxygen produces the safest known form of anesthesia. In support of this statement they quote Hewitt:[1]

> There is no form of anesthesia known at present which is so devoid of danger as that which results from nitrous oxid when administered with a sufficient percentage of oxygen to prevent all asphyxial complications. I have employed this system up to the present time (January, 1901) in about 14,000 cases as near as I am able to estimate and . . . I have had no anxiety . . . So far as I am aware no fatality has yet been recorded under nitrous oxid and oxygen.

A large proportion of Hewitt's 14,000 cases were dental or minor surgery operations requiring brief administrations. In response to a personal communication from me, last year, he replied that he used it to a limited extent in major surgery owing to the difficulty in securing tranquil anesthesia and muscular relaxation in these cases.

Enthusiastic writers also cite the statistics of Teter, of Cleveland. A tabulation, by G. W. Crile,[2] of 17,716 administrations by Teter of gas and oxygen without a death shows:

12,886	administrations	lasted	less	than	5 minutes
3,365	"	"	5 to	15	"
865	"	"	15 to	30	"
346	"	"	30 to	60	"
228	"	"	1 to	2	hours
22	"	"	2 to	3	"
2	"	"	3 to	4	"
17,716					

It is evident, therefore, that the majority of these administrations were for dentistry or minor surgical procedures requiring brief inhalations — and not for major surgery.

As Hewitt says:[3]

* Read before the Obstetrical Society, Boston, Nov. 28, 1911.
* This article is an elaboration of some remarks made on this subject in a brief paper at the annual meeting of the Massachusetts Medical Society, June, 1911, and again in the course of a lengthy paper read before the New York Society of Anesthetists, in New York City, November, 1911.

1. Hewitt: Administration of Anesthetics, 1901, p. 265.
2. Crile, G. W.: Surg., Gynec. and Obst., 1911, xiii, 170.
3. Administration of Anesthetics, p. 261.

The anesthesia produced by this system is particularly suited to dental operations; in fact, so far as my experience goes, there is no other form of anesthesia that can be compared to it.

The safety of gas and oxygen anesthesia in dentistry and in minor surgery requiring brief administrations is not to be contested. It is undoubtedly very safe. But during the prolonged administrations required in major surgery, a patient's respiration and circulation undergo many and marked reflex changes which make the administration of gas and oxygen in these cases quite a different proposition.

Thomas L. Bennett of New York, the leading surgical anesthetist in America to-day and a man of wide experience with anesthesia, says the following on this subject:[4]

The writer has administered gas with air or with oxygen for operations lasting from a few minutes to more than two hours in several hundred cases, and while he has had no deaths, alarming states have several times appeared with such rapidity and so little warning that it seems probable that the general adoption of this form of anesthesia would lead to a mortality more nearly approximating, if not exceeding, that of chloroform and ether.

This opinion is strengthened by the occurrence of four such deaths in New York City which have come to the writer's notice within one year.

It is therefore probable that nitrous oxid and oxygen is the safest general anesthetic if restricted to momentary administrations, as for dentistry. The prolonged administration of this anesthetic is quite a different matter, however, and at the present time there are not sufficient data of its use to warrant conclusions as to its safety.

In response to a personal communication from me, last year, Dr. Bennett replied that he had seen no reason to change his views concerning the safety of gas and oxygen.

I have had a fair amount of experience with this method. In 1903, at the Massachusetts General Hospital, working with Dr. W. M. Conant and others, I anesthetized fifty patients (major surgical cases) with gas and oxygen, using a Hewitt apparatus (no ether given). The method was then dropped, owing to lack of demand, until the autumn of 1909, since which time, using a new model Hewitt and lately a Teter apparatus, I have anesthetized in private and hospital practice 152 patients (major surgical cases). I have several times encountered, in my work, the "alarming states" mentioned by Bennett. They occur suddenly and without warning. The patient suddenly becomes livid, respiration fails, the pupil dilates and—which I consider the most alarming sign of all—the corneal reflex becomes faint or absent. Last year I had a death under nitrous oxid and oxygen. The patient was a profoundly uremic, almost pulseless, man about to be operated on for decapsulation of the kidneys. After about four minutes of inhaling the anesthetic and with the oxygen indicator of the Hewitt apparatus pointing to "5," the patient died before the incision could be made—clearly an anesthetic death. It may not be pertinent, but may be of interest to know that during ten years of professional anesthetizing, I have had but one other death, and that was due to rectal etherization.

I know of two deaths and one very alarming accident occurring within two years in Boston in the practice of young doctors administering gas and oxygen in major surgery.

4. Bennett, in the New Reference Handbook of Medical Sciences, 1901, iii, 19.

In light of the above, therefore, I conclude that gas and oxygen anesthesia is *not* the safest known anesthetic method in major surgery, and it would seem desirable that exploiters of this method, in citing statistics designed to show its safety, should carefully separate the brief administrations required for dentistry and minor surgery from the prolonged administrations of major surgery; otherwise no helpful idea as to its safety in the latter can be obtained.

Undoubtedly, as perfected by Crile, with his improvements in apparatus, with his use of "anoci-association," with the infinite pains that he takes with each case and when administered by his skilled anesthetists, the method is made practically perfectly safe. He cites 2,412 surgical operations performed under nitrous oxid and oxygen alone or nitrous oxid supplemented by ether, without an anesthetic death. He says:[5]

The shortcomings of nitrous oxid anesthesia are as follows: It is the most difficult anesthetic to administer; its effects are fleeting; there is imperfect relaxation of the abdominal muscles; it is more expensive than ether, and there is more venous congestion. The anesthetist must be an individual of the keenest perception of the precise condition of the patient at every moment, i. e. the anesthetist must be a most delicate human recording apparatus.

It would seem, then, that in enumerating the factors which will contribute toward increasing the safety of gas and oxygen, the one of first importance is that it should always be administered by a skilled anesthetist and not undertaken by practitioners with no knowledge, or only an average knowledge of the administration of anesthetics. With the former class of practitioner, i. e., one with no knowledge of anesthetics, a patient would be perfectly safe as regards gas and oxygen, because the practitioner would be unable to bring the patient under the influence of the anesthetic at all. But with the latter class, i. e., a practitioner with an average knowledge of anesthetics and yet unable to interpret properly the sounds and rhythm of breathing, a patient would be anything but safe under gas and oxygen.

Another important factor in contributing to the safety of gas and oxygen is proper preliminary medication of the patient with morphin and atropin and, possibly, scopolamin.

A third and very important provision for safety is to secure a steady and even flow of both gases. To secure a steady flow of oxygen is simple. To secure a steady flow of nitrous oxid is difficult. The best way to secure this is to have the gas piped direct to the inhaling-apparatus from a nitrous oxid plant, as in Crile's clinic in Cleveland. The second best is to use reducing-valves fitted to the gas cylinders supplied by the manufacturers. These reducing-valves reduce the pressure in the cylinders and secure a steady and even flow. They are seen on the large cylinders rented by some gas companies, and also in the apparatus lately devised by Drs. Cotton and Boothby of Boston. The third best way to secure this steady flow is to have an assistant keep the gas-bags of the apparatus evenly distended by turning on gas from alternate cylinders. The steady flow of gas tends to maintain an even anesthesia and enables the anesthetist to give his full attention to air exclusion and to the patient's general condition.

The danger of gas and oxygen anesthesia in surgery is that it is essentially too light a form of anesthesia to abolish the higher reflexes which are stimulated by the

5. Crile: Surg., Gynec. and Obst., 1911, xiii, 170.

operative procedures. It is difficult to produce a sufficiently deep and even anesthesia and the reflex changes undergone by the patient's respiration and circulation constitute the danger by impeding the even inhalation and exhalation of the gases. Consequently the factors above enumerated, by tending to produce a deeper and more even anesthesia, tend to increase the safety of the method.

In discussing the freedom from after-effects of gas and oxygen anesthesia, careful distinction should be made between patients given gas and oxygen "with just a little ether" and patients given simply gas and oxygen. It may of course be necessary, in order to get muscular relaxation, to turn on "just a little ether" during the administration. Such administrations should be spoken of as gas, oxygen, and ether anesthesia. Teter says that about 17 per cent. of patients vomit slightly after gas and oxygen anesthesia. Hewitt says:

> In one case in which I administered the gases for removal of the breast, the vascularity of the parts was as great as it usually is under ether; and the patient, who was particularly anxious to avoid this latter anesthetic, because of previous experiences, was sick for many hours after the administration.

If nausea and vomiting occurs in a certain proportion of cases under nitrous oxid and oxygen alone, it is surely much more apt to do so if any ether is given.

Recently a case has come to my notice. A woman requiring a major surgical operation elected to take gas and oxygen in order to avoid the intense nausea and vomiting that had followed previous administrations of ether. During the administration, in order to produce more complete muscular relaxation, "just a little ether" was given. The result was that the postanesthetic nausea and vomiting was fully as severe as that which had followed previous administrations of ether. The purpose for which the gas and oxygen was given was thus defeated.

It would seem obvious, therefore, that if we wish to arrive at a helpful conclusion as to the freedom from after-effects of gas and oxygen in major surgery, writers must be careful to distinguish between cases in which gas and oxygen only is given and those in which gas, oxygen and "just a little ether" is given.

The large amounts of ether which some anesthetists use in conjunction with their gas and oxygen administrations puts the method about on a par with the closed or rebreathing method of administering nitrous oxid and ether, discovered by Clover in 1876 and further elaborated and practiced by Bennett for the past fifteen years. Except in certain selected cases in which it is possible to omit ether entirely from a gas and oxygen administration, this method has not a very great advantage in major surgery over a properly conducted administration of the gas-ether sequence by Bennett's method; provided, of course, that the ether part of the administration is maintained by the closed or rebreathing method as practiced by Bennett, and *not* by the semi-open method.

CONCLUSIONS

1. Writers quoting statistics designed to show the safety of gas and oxygen anesthesia should carefully separate the brief administrations of dentistry and minor surgery from the prolonged administrations of major surgery.

2. Anesthetic deaths occurring during the use of nitrous oxid and oxygen in major surgery are not uncommon.

3. There are at the present time not enough statistics as to the safety of nitrous oxid and oxygen in major surgery to show that it is as safe as ether or chloroform.

4. In order to insure a maximum of safety, gas and oxygen should not be administered except by a skilled anesthetist equipped with the best available apparatus, and patients should receive preliminary hypodermic medication.

5. In estimating the freedom from after-effects of gas and oxygen anesthesia in major surgery, careful distinction must be made between patients receiving gas and oxygen only and those receiving gas and oxygen and "just a little ether."

6. When given with large amounts of ether, gas and oxygen has only a slight advantage over the nitrous oxid-ether sequence properly administered by the closed method.

CLINICAL OBSERVATIONS FROM 203 PATIENTS OPERATED ON FOR RENAL TUBERCULOSIS

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Cystitis is usually secondary to some extravesical cause, and its cure is generally accomplished by the removal of such cause. Only within the last few years have we learned to recognize renal tuberculosis clinically through the persistent bladder irritability which it causes. Certainly no one is justified in treating locally a case of bladder irritability until all means have been exhausted to exclude the existence of renal tuberculosis. Without going into the clinical description of typical cases of renal tuberculosis, which has been done so often in recent literature, I will confine my observations to a brief consideration of the exceptional conditions, the complications and results in 203 cases of renal tuberculosis in which the patients were operated on in St. Mary's Hospital (Mayo clinic).

SUMMARY OF STATISTICS

A summary of various data tabulated from the series may be of interest.

1. *Sex.*—There is a noticeable preponderance of males, in that they constituted 61 per cent., or almost two-thirds of the total number of cases.

2. *Age.*—Although renal tuberculosis is generally considered as being confined largely to the young adult, 29 per cent. of the patients in our series were above 40 years of age.

3. *Hematuria.*—Hematuria was found to be present in 60 per cent. of the cases. It is of particular interest to note that hematuria occurred about twice as often in the male as in the female.

4. *Primary Symptoms.*—Bladder irritability in 86 per cent., renal pain either alone or coincidental with bladder irritability in 25 per cent., and hematuria in 6 per cent. of the cases, are primary symptoms.

5. *Renal Tumor.*—Renal tumor was palpable in but 20 per cent. of the cases.

CLOSED PYONEPHROSIS

The pathology of the tuberculous kidney will frequently depend on the situation, number and character of strictures found in the tuberculous ureter. If the first stricture be near the bladder, a varying dilatation

of the ureter above it and of the renal pelvis will necessarily follow, depending on the degree of the constriction. If the first stricture is in the upper ureter, there may be multiple strictures below it. If the ureter becomes closed early, a large pyonephrosis may result; if late, but a caseated remnant of the kidney may remain.

When the ureteral constriction becomes so great as to prevent any infecting secretion from reaching the bladder, the process is called "autonephrectomy." In such cases the bladder may recover entirely, although usually a small amount of the secretion will find its way into the bladder so as to reinfect it sporadically to a varying degree. The bladder symptoms are then often obscured by those of abdominal pain or tumor, while the absence of pus or tubercle bacilli in the urine may further mislead one.

The cystoscopic examination must determine the absence of secretion from the affected side, and will usually reveal several areas of ulceration often situated on the bladder roof. The radiograph may also be of corroborative value by demonstrating the shadows which are often cast by the calcium deposit in the caseated areas.

SECONDARY INFECTION

While, as a rule, the urine with renal tuberculosis is acid and is free from bacteria other than the tubercle bacillus, secondary infection frequently occurs and the clinical symptoms may be markedly altered. Most observers are agreed that interference with urinary drainage is the usual cause of an ascending infection. A secondary infection in a tuberculous kidney often results from constriction in a tuberculous ureter. The symptoms then noted are variable and may be any of the following: (1) comparative cessation of bladder symptoms; (2) pain and tenderness in the kidney area; (3) fever and chills; (4) pallor and weakness from toxic absorption.

Of particular interest is the marked decrease in bladder irritability which is often noted with secondary infection. It becomes very difficult to demonstrate the tubercle bacillus in the thick purulent urine. The kidney may be so greatly altered by the inflammatory process that its initial tuberculous nature is obscured.

RESISTANCE

To what extent the individual is able to resist and overcome renal tuberculous infection is still a disputed point. The present trend of opinion is to regard a spontaneous or tuberculin cure as exceptional and one to be regarded with distrust. It would seem that the clinical course might be divided into three general groups including:

1. Those cases in which the course of the renal disease is steadily progressive, which constitute the majority of cases seen.

2. A smaller number of cases which are characterized by considerable resisting powers in the patients, as evidenced by intervals of spontaneous recovery from their symptoms, followed by periods of recurrence. After a number of years the course of the disease usually becomes progressive. Evidence of localization of the process is sometimes seen in the surrounding areas of scar tissue, cystic degeneration or dormant circumscribed foci.

3. A few cases with but little evidence of tuberculous infection other than a few pus cells and tubercle bacilli in the urine from the affected kidney, which may persist over a period of more or less than a year, and then, under general treatment or tuberculin, disappear entirely.

Various observers have reported cases of symptomatic cure from an evident well-advanced renal tuberculosis. Before such a recovery is established definitely, enough time must elapse to exclude a possible recurrence. Furthermore, a closed ureter or so-called "autonephrectomy" is not an uncommon occurrence and would be followed by a symptomatic cure.

Of considerable interest is the increased resistance to renal tuberculosis as seen in the older adult. In our series 29 per cent. of patients were over 40 years of age, showing that it is not an uncommon infection above that age. With most of these patients the symptoms were moderate and of several years' existence. The bladder lesions were often those of a mild cystitis. The kidney lesions were usually well localized and not extensive. Young adults with considerable loss of weight and strength, in whom the cystoscopic examination showed marked general ulceration of the bladder after an infection of but several months' duration, usually have an unfavorable prognosis.

ASCENDING BLADDER INFECTION

It is now generally conceded that primary bladder infection may be disregarded as a clinical entity and that it follows either a descending or ascending infection. The relative percentage of descending and ascending infections has been variously estimated, the latter as high as 20 per cent. It would seem, however, that an exact relative estimate would be quite impossible because of the difficulty in identifying the bladder infection as tuberculous. During the past three years we have made a cystoscopic examination of thirty-seven patients with tuberculosis of either epididymis, testicle or prostate, who complained of bladder symptoms in which renal infection was excluded. Of this number, twenty-three showed no evidence of actual bladder inflammation, and we must regard their symptoms as due to extra-vesical irritation or possibly a slight inflammation in the prostatic urethra. Nine patients showed a moderate degree of inflammation confined to the base of the bladder without any evidence of tubercle or ulcer.

Finally, there remain a few patients (five in number) in whom the bladder appeared quite markedly inflamed, with areas of superficial ulceration strongly suggestive of actual tuberculous infection. The demonstration of the tubercle bacillus in the voided urine would hardly identify the bladder infection because the bacillus may come from the infected prostate or seminal vesicle. In our experience the number of cases which could be regarded as tuberculous from an ascending infection have been less than 5 per cent. of the tuberculous bladders observed.

COMPLICATIONS

The tuberculous infection was confined to the kidney in but a comparatively small percentage of cases which came to operation. The ureter was found infected to a varying degree in most of the cases. While it may be difficult to say whether the infection in the bladder is actually tuberculous or not in some cases, judging from the severity of ulceration and persistence of symptoms after nephrectomy, in more than two-thirds of the patients examined the bladder became infected. In order of frequency the extra-urinary complications in our series were found to be as follows: male genital, pulmonary, joint, bone.

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Male Genital.—In over 60 per cent. of the cases of renal tuberculosis evidence of the disease was found in the epididymis, testicle, vas deferens or prostate. The epididymis was most often affected, the changes varying from a nodular thickening to a tumor the size of an orange. The testicle is usually not involved, if at all; the adjoining portion is the first to become infected. Palpable tuberculous changes in the prostate occurred in over a third of the male patients with renal tuberculosis.

The changes will vary from a moderate nodular thickening, which is usually found, to a diffuse irregular boggy tumor, and often one lobe is larger than the other. Clinical evidence of infection in the seminal vesicle occurs less often. The presence of the disease in the male genitals should be looked for as a routine procedure and is often of considerable value as corroborative evidence. Genital infection *per se* offers, as a rule, no contra-indication to nephrectomy. With a large prostatic abscess and a perineal fistula, and when the patient is otherwise extremely weak, the value of a nephrectomy might be problematical.

Pulmonary.—The lungs were found affected to a varying degree in 6 per cent. of the patients operated on. All of those (six) showing marked involvement died within a year after operation, whereas the others recovered. Providing that the general condition of the patient is otherwise good, a *slight* pulmonary lesion should be no contra-indication to operation. If there are lesions present also in other parts of the body, or if the pulmonary disease is bilateral or well advanced, removal of the diseased kidney will not, as a rule, stop the progress of the tuberculous infection.

Joint.—History of previous joint tuberculosis was present in 7 per cent. of the patients operated on. Active joint lesions occurred in 3 per cent. of the cases. But five of these patients were reported dead, showing that a joint complication does not necessarily lessen the patient's resisting powers and offers no contra-indication to nephrectomy.

Bone.—A bone lesion was present in but three of the patients operated on. In two of the patients marked kyphosis remained from previous vertebral infection. Active vertebral infection was found in several cases regarded as inoperable. Complications other than the above were lumbar, abdominal and perineal fistulas and tuberculous adenitis.

DIFFERENTIAL DIAGNOSIS

The errors in clinical diagnosis in our series have been made in the differentiation of pyelitis, kidney stone, stricture of the lower ureter, single kidney and cold abscess.

Pyelitis.—As a rule, the clinical picture and cystoscopic examination will readily differentiate a pyelitis. When, however, the cloudy urine is unilateral and the bladder appears ulcerated and contracted, confusion may easily arise unless the presence of the tubercle bacillus can be demonstrated. Demonstration of cortical abscesses in the colloidal silver plate may be of considerable value. If necessary, guinea-pig inoculation should be made.

Kidney Stone.—Calcareous deposits in caseated tuberculous foci may simulate lithiasis. Since the case history in renal lithiasis and tuberculosis may be identical we must rely largely on the cystoscopic data and the demonstration of the tubercle bacillus for a diagnosis. The character of the radiograph shadow is usually suggestive of its tuberculous nature. The occasional presence of secondary stone deposits in the residual urine of advanced tuberculous kidneys must also be remembered.

Single Kidney.—With a congenital, single or atrophic kidney and a chronic ulcerative cystitis, one might easily infer that the absent kidney was destroyed by the so-called autonephrectomy, which occasionally happens with a closed tuberculous kidney.

Cold Abscess.—Patients with a lumbar abscess of renal origin not infrequently appear with little or no urinary symptoms or findings. Cystoscopic examination will demonstrate the absence of secretion from the affected kidney. Injecting colloidal silver through the external sinus and then radiographing will often trace the abscess to its origin. With a tuberculous kidney necrosis the sinus may attain an extraordinary depth, extending even as far as the bony pelvis, giving the impression that the abscess originated there.

RADIOGRAPHIC DATA

The calcium deposit in caseated foci of tuberculous kidneys will often cause shadows to appear in the radiograph. The shadow is usually of three general types: (1) the cast of the caseated kidney, entirely or in part; (2) single, irregular shadows of varying size outlining the caseated center of tuberculous foci, which is the usual type; (3) multiple, small, irregular shadows scattered over the kidney area. Not all areas of caseation will cast a shadow, however; in fact, the majority will not. It is impossible to judge from its macroscopic characteristics whether the caseated area would cast a shadow. The shadows vary in density from a thin film to a distinct outline, and are usually more hazy and irregularly edged than the stone shadow. The diagnosis of lithiasis based on such shadows is a common clinical error.

The injected radiograph (pyelograph) of tuberculous kidneys and of those suspected of being tuberculous is often of considerable interest and practical value.[1] Many tuberculous kidneys removed after an infection of several months' duration will show areas of cortical necrosis in direct communication with the renal pelvis. This can be outlined clinically in the radiograph of the injected cavity (colloidal silver) without any detriment to the patient. When the necrotic process is extensive the pelvis may appear markedly irregular and greatly dilated in the pyelograph. The pelvis with non-tuberculous pyelitis, on the other hand, while usually appearing moderately enlarged, is not so irregular nor will it show any cortical abscesses.

Dilatation above constriction in the tuberculous ureter may be outlined in the injected radiograph. With a primary stricture near the bladder the resulting hydroureter may simulate that resulting from a congenital or traumatic obstruction.

CYSTOSCOPIC TECHNIC

In reviewing the literature descriptive of cystoscopic technic in the tuberculous bladder, the impression might be gained that the appearance of the meatuses and bladder, as well as the ureteral data, were quite uniform, and one would be led to expect to find typical ulceration or tubercles, confined largely to the affected side. The affected meatus is described as being "golf-hole," or markedly ulcerated with cloudy urine exuding, while the other meatus appears normal. Although such a picture may be found in many cases, in the majority it will not be found.

1. Braasch: Ann. Surg., November, 1910.

The technic involved in finding and catheterizing the tuberculous ureter is the most difficult in cystoscopy, as is evidenced by the many errors and failures made even by competent endoscopists. In reviewing the many difficulties and possible sources of error encountered, the following conditions were found most often:

1. A papillomatous proliferation of the mucosa as the result of the marked inflammatory changes accompanying tuberculous cystitis may be so extensive as to be mistaken for a malignant papilloma. This false papilloma or granulation tissue is more often seen with a tuberculous cystitis than with any other bladder inflammation. It may be low and flattened by distending the bladder or it may be a pedicled cauliflower-like growth. It is particularly confusing if either ureteral orifice is so hidden in the growth as to render inspection or catheterization impossible, or if at the time of examination but little pus and no tubercle bacilli are found in the urine. It may be necessary to obtain a specimen of the growth through the cystoscope for laboratory examination to determine its identity.

2. The ureteral orifice on the normal side may appear even more diseased than that of the diseased side. The bladder segment of the ureter on the well side may become infected from the severe cystitis, with consequent dilatation and rigidity. It may become so retracted as to form a false diverticulum of the bladder-wall.

3. Erroneous observations are easily made as to the amount and character of urinary secretions. As a result of irritation caused by the cystoscope the bladder-wall may so contract that little or no urine may be seen to escape from either meatus during five to ten minutes. With marked inflammatory dilatation of the bladder ureter on either side, retained cloudy bladder fluid, when exuding, may give the impression that the secretion from that side is purulent.

4. Obstruction to the ureteral catheter preventing successful catheterization is quite frequently encountered. If on the diseased side, which occurs more often, it is usually due to constriction following ureteral ulceration. On the normal side the obstruction is usually at the meatus or intramural as the result of cicatricial changes following marked inflammation or ulceration in the bladder-wall.

5. Urine catheterized from the well side may be contaminated with a few pus cells and possibly tubercle bacilli scraped from the bladder mucosa in introducing the ureteral catheter. Such an error might easily lead to an erroneous diagnosis of a bilateral infection.

When the condition of the healthy kidney cannot be determined through cystoscopy, bilateral surgical exploration is necessary. Whenever this was deemed necessary in our series both kidneys were usually found diseased and in one case the other kidney was found to be absent.

BILATERAL TUBERCULOSIS

Although various observers have regarded the bilateral infection as usually occurring simultaneously, it would seem, from our series, that in the majority of cases the second kidney becomes infected several years after the first one. Of the cases diagnosed as bilateral tuberculosis the majority gave a history of evident renal infection dating back from two to ten years. The course of the second infection may often be traced by the history of a comparatively recent exacerbation of bladder symptoms and pronounced general weakness occurring several years after the first infection. This is, furthermore, often borne out at operation where bilateral exploration not infrequently reveals an old abscessed kidney on one side, and a recent small focus in the other. The danger of subsequent infection in the second kidney should be regarded as an urgent argument for early operation. Bladder irritability is frequently diminished in advanced bilateral involvement. Cystoscopic examination will then often show the bladder mucosa to be necrotic and covered with a thick, purulent exudate, rendering it impossible to see the ureteral meatuses. Pulmonary infection is a frequent terminal complication of bilateral disease. The symptoms of renal insufficiency accompanying bilateral involvement are quite different from those usually accompanying the insufficiency of nephritis; emaciation, weakness, nausea and vomiting are the usual symptoms observed, while edema of the extremities is seldom seen and ophthalmoscopic examination is usually negative.

ADRENAL GLAND INVOLVEMENT

During the past two years we have observed at operation three cases in which the adrenal gland, together with the kidney of the same side, was involved in the tuberculous process. The adrenal gland was found to be fully twice as large as normal and densely adherent to the inflammatory tissue about the kidney. On section, caseated tubercules, varying in size, were found scattered in the substance of the gland in two cases. In the third, the gland, though considerably enlarged, presented only inflammatory changes without any evidence of tubercules. The last patient died three weeks after operation. Autopsy revealed no evidence of tuberculosis in the remaining adrenal. Of the other two patients, one died three months after operation and the other was reported alive after one and one-half years. Clinically, the cases were of exceptional interest from the fact that they exhibited symptoms which may have been due to the diseased adrenal gland. In two of the patients numerous areas of brown pigmentation of the skin were found in various parts of the body and also on the palate. After operation, the third patient presented marked ecchymoses in the conjuctiva of both eyes, and numerous minute areas of subcutaneous hemorrhage on both legs.

CAUSE OF POST-OPERATIVE DEATH

While insufficiency of the remaining kidney has been generally regarded as a frequent cause of death following nephrectomy for renal tuberculosis, it would seem that there are other factors which should also be considered. Every autopsy record of patients dying soon after nephrectomy showed evidences of a severe general toxemia. Cloudy swelling and fatty degeneration of the remaining kidney as well as of the liver, brown atrophy of the heart muscle, miliary tuberculosis in the various organs and peritoneum were found in practically every case. In one patient, who died of post-operative lobar pneumonia, the remaining kidney showed evidences of chronic and acute nephritis, which otherwise might have been regarded as the direct cause of death. Various observers have shown that albumin and casts disappear from the urine of the remaining kidney after the diseased kidney has been removed. It would seem, therefore, that the evidences of post-operative renal insufficiency are but part of a systemic toxemia and that the patient's power of resistance is diminished by operation. It hardly seems possible that a laboratory estimation of the kidney function would determine the degree of this resistance.

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SUMMARY OF RESULTS

Six (2.9 per cent.) of the 203 patients operated on died in the hospital. Excluding the cases of those patients operated on during the past year as being too recent to be of statistical value, we were able to obtain the subsequent histories of but 70 per cent. of the patients. Of this number, 18 per cent. were reported dead. Of this 18 per cent., 60 per cent. died during the first year after operation, and 15 per cent. lived more than three years. Of the 82 per cent. alive, all but 13 per cent. reported improvement or recovery from their previous bladder symptoms. The majority of those reporting no bladder improvement had gained in weight and strength.

The length of time elapsing before the bladder symptoms were relieved varied from a few weeks to five years after operation, 67 per cent. in less than a year. Seventy-five per cent. of those patients reporting no improvement in their bladder symptoms gave a history of bladder infection of more than two years' standing. The operative wound was reported healed in less than three months by 43 per cent. of the patients, and in less than a year by 87 per cent. The sinus persisted as long as four years in one case. Healing of the sinus was evidently hastened in but few cases by bismuth paste injections. Ureterectomy did not seem to affect the after-course materially. In the fourteen patients in whom ureterectomy was done with the nephrectomy the sinus persisted fully as long as in the others.

Of five patients in whom the diagnosis of bilateral tuberculosis was made and substantiated on exploration, and in whom the more diseased kidney was removed, all were reported dead within a year after operation. While our results in operating for bilateral tuberculosis are not so satisfactory as those noted by some observers, the operation may occasionally be followed by cure.

Operative mortality is therefore a negligible factor in nephrectomy for renal tuberculosis. We can expect a permanent cure in fully 75 per cent. of patients operated on. On the other hand, if otherwise treated, fully 90 per cent. must eventually succumb to the infection and in taking the small chance for such a cure the risk of infecting the bladder or infection in other foci is greatly increased.

SOME BACTERIAL AND NON-BACTERIAL DISEASES *

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BACTERIAL DISEASES

Bacterial mouth manifestations furnish a large field for original research which has been neglected for the reason that the physician has been content to leave this line of investigation for the stomatologist. The dentist has been educated along such narrow lines that from his mechanical and commercial inclination and training he is totally unfit for and uninterested in original investigation.

Medical workers in bacteriology are devoted to the general subject and rarely touch on special or local causes and results. Miller's "Micro-Organisms of the Human Mouth" is the only work along this special line with which I am familiar. The researches in this work are certainly well begun, but there is plenty of room for the further pursuit of this subject to confirm or reject previous investigation, to add to the facts already recorded in this pioneer work of Miller and also to take up new investigations where Miller has left off.

Further research is necessary for the purpose of diagnosis and treatment. In most mouth infections, specific treatment may be applied with satisfactory results, while diseases due to remote causes do not respond so readily.

A few cases of mouth infection coming to my notice are worthy of mention at this time. I have had two patients with gonorrheal infection of the mouth; both these patients were traveling salesmen and while the treatment which was given was beneficial, they left the city before they were entirely cured and the final results were not ascertained.

The literature on gonorrheal infection of the mouth in adults is meager. Dr. W. L. Baum[1] remarks:

> Gonorrheal ulceromembranous stomatitis, is, according to Menard, always due to profound systemic infection and is always a secondary state. This position was opposed by J. P. Tuttle[2] more than a decade ago, who cited in opposition, among other cases that of C. W. Culter,[3] in which, in an adult, osculation of a gonorrheic penis was followed in a few hours by a raw, dry feeling in the mouth and in twenty-four hours by the lip vesicles. The gums by the third day were painfully swollen, and on the fifth day the mouth was intensely inflamed. A whitish fluid with a disagreeable odor and taste was secreted. The lips cracked and were covered with herpes; the lip and cheek mucous membrane was thickened, reddened, denuded of epithelium in spots, and in patches covered with a false membrane. Cases later reported by R. Larson[4] were of similar type and origin.
>
> Gonorrhea, a common epidemic in institutions for children, usually assumes the form of ophthalmia, vulvovaginitis and pyemia. In a number of cases of infant pyemia reported by R. B. Kimball,[5] no local lesion was found to explain the entrance of the gonococcus to the general circulation. In Kimball's opinion, the gonococcus may produce a stomatitis, from which a systemic infection could arise. Many conditions of the gums and alveolar process, such as occur prior to pyorrhea alveolaris, predispose to stomatitis, readily forming a culture medium for the gonococcus. Conditions like this in an infant can easily be mistaken for sprue and treated therefor, thus conceding a possible source of systemic infection resulting in pyemia.
>
> Gonorrheal stomatitis, in a case described by Juergens, developed on the gums and cheeks of a man who had recently had gonorrhea. The resultant dirty gray deposit contained the gonococcus.

A horny gonorrheal exanthem is described by G. Baermann.[6] The exanthem was secondary to a severe gonorrheal attack, and was hyperkeratotic in nature. It bore some resemblance to certain tertiary luetic results and to psoriasis. A bacillus was found which resembled the bacillus of the kerosis (xerosis?) group. Baermann is inclined to refer the results to this bacillus, as the gonococcus was not found. It would seem more probable from the results of Woodruff,[7] Baum remarks, that the gonotoxin, which is exceedingly irritating, was the proximate determining cause. The exanthem involved the upper surface of the foot as well as the sole, and was evidently related to the arthritic conditions which appeared in the case.

* Read in the Section on Stomatology of the American Medical Association, at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

1. Baum, W. L., in the Practical Medicine Series, 1904, x.
2. Tuttle, J. P., in Morrow's System, 1893, i.
3. Culter, C. W.: New York Med. Jour., Jan. 25, 1889.
4. Larson, R.: St. Louis Med. and Surg. Jour., 1896.
5. Kimball, R. B.: Med. Rec., Nov. 14, 1903.
6. Baermann, G.: Arch. f. Dermat. u. Syph., lxix.
7. Woodruff: Practical Medicine Series, 1902, x.

That the gonotoxin could be drawn to the alveolar process when the elimination is interfered with elsewhere is undeniable. That processes could be set up similar to the hyperkeratotic states, ascribed by Baum to the gonotoxin, is equally indisputable; still the evidence in my two cases pointed to direct infection. The alveolar process, being a doubly transitory structure and an end-organ with poor vitality, is acted on very quickly and destructively by these germs. The absorption of the tissues is so rapid that the teeth soon loosen and drop out, if the disease be not arrested.

Two cases[8] coming to my notice are as follows:

CASE 1.—*History.*—Traveling salesman, aged 36, unmarried, was sent to me by his physician for local treatment, May 3, 1904. There was a history of gonorrhea with continued urethral discharge.

The mucous membrane on the entire superior alveolar process was involved. The gingival border of the mucous membrane was destroyed and the alveolar process was exposed. Marked inflammation with excessive swelling occurred. Interstitial gingivitis extended throughout the alveolar process, the teeth were loose and sore to touch. The pain was so severe that sleep was out of the question. Salivation was excessive. The raw ulceration was covered with a glazed surface of greenish-gray color. A microscopic examination of a smear from the gums distinctly showed gonococci infection.

Local application of iodoglycerole was used for three days; then the patient left the city. The time was too short for any improvement of the mucous membrane to be noticed, but the pain was not so severe.

CASE 2.—Clerk, aged 45, married, came for consultation. He had contracted gonorrhea twenty-four years previously, and had suffered with gleet ever since.

The anterior superior alveolar process was exceedingly inflamed, raw and badly swollen. He suffered severe pain. Interstitial gingivitis was very profuse through the alveolar process. The incisors were loose, two of which I was obliged to remove. The surface was ulcerated and raw with a glazed surface of greenish-gray color. He had been married eight years; no children. His wife had local trouble, for which she had had three operations; he did not know the nature of her trouble. He had been advised by a former consultant to have his jaw removed, because of its cancerous appearance. Dr. Hektoen's examination of the tissue for cancer proved it to be simply inflammatory. I suspected gonorrheal infection. Examination of the tissue proved my suspicion correct.

Applications were first made of iodoglycerole, then silver nitrate. The inflammation subsided in the anterior part of the mouth, but extended rapidly through the vault to the soft palate, which was reached in three weeks from the time I first saw him. On consultation with Dr. Baum, argyrol (25 per cent.) was used.

Both these men were apparently in good health, except for slight rheumatism. Both seem to have been infected by the fingers as an intermediary host of the gonococcus.

SPIRILLA INFECTION

CASES 3, 4 and 5.—Three patients with spirilla infection were most interesting. Mr. G., aged 30, just married; Mr. C., aged 31, unmarried, and Dr. DeC., aged 28, unmarried. The histories were alike. The mouths were very much inflamed, especially the gums. The gum festoons were very much swollen and ulcerated. Most excruciating pain on touch; teeth loose. The appearance of the gums was not unlike those mentioned before in the gonorrheal infections with the dirty gray appearance but the isinglass appearance on the surface was not present. A microscopic examination of each showed spirilla and spirochetes, though the spirochetes did not have the character of *Spirochæta pallida*. Mixed pus cocci was present in all; one had pneumococci. Blood and pus were present in each patient. Staphylococcus emulsion was made of cultures from the pus on gums. One drop contained 20,000,000 killed bacteria. The emulsion was injected into guinea-pigs with negative results. Since spirilla mouth infections are properly due to uncleanliness, a removal of the filth deposit around and between the teeth and a local application of a 20 per cent. solution of argyrol healed the tissues in from one to two weeks.

8. Talbot, E. S.: Internat. Dent. Jour., April, 1905.

APHTHÆ

Aphthæ were supposed to be the result of impaired digestion. When these ulcers made their appearance in the mouth, it was thought the stomach secretions were in an abnormal condition. They may be located on any part of the mucous membrane of the tongue, gums, cheeks or lips. Sometimes they are the size of the head of a pin and in one instance coming under my notice, the entire mucous membrane of the mouth was covered. They are usually started by the irritation of a tooth brush, toothpick or any foreign substance causing irritation. The germs already in the mouth infect the part and the ulcer is formed in twenty-four hours. I have produced aphthæ ulcers in cleaning the teeth and massaging the gums. These ulcers usually occur on the mucous membrane of the cheeks and lips by accidental injury to the parts with the revolving brush.

I have seven patients in my practice who are subject to these patches and I have produced them by irritating the part with the revolving brush in cleaning the teeth. Some patients seem to be susceptible to special germ accumulation and infection. These ulcers are treated successfully by the use of silver nitrate, but a better and less painful method is the use of 20 per cent. argyrol which acts quickly and successfully.

NON-BACTERIAL DISEASE

INTERSTITIAL GINGIVITIS OR SO-CALLED PYORRHEA ALVEOLARIS

A disease which the stomatologist is called on to treat many times each day is that of interstitial gingivitis. The term "pyorrhea alveolaris" was given the disease in 1880, by Dr. Rehwinkel of Ohio, because in a few patients pus was discovered about the necks of the teeth. This term "pyorrhea alveolaris" has led many a good man astray. That there are a few patients with infection of the gums, all will admit; some of these have already been mentioned. These infectious diseases can easily be differentiated from the ordinary interstitial gingivitis patients so common in practice. The disease presented us many times each day, however, has not been shown to be infectious. Research work has been done by many scientists, Galippe,[9] Miller,[10] Rhein, George T. Carpenter,[11] Sudduth[11] and myself,[11] none of whom has been able to show it to be a germ disease. It may be possible later to demonstrate infection as a cause. My own researches[11] have shown that the interstitial gingivitis is due to an irritation of both a local and a constitutional nature. These experiments have been made by every conceivable method on human beings and animals. I admit that when pyorrhea is present, pus infection has taken place, but only about 10 per cent. of patients are so infected. This condition, however, is always secondary to the primary disease. If my views should prove to be correct, the opsonic and vaccine methods of treatment are certainly not in harmony with proper methods of treatment, and much time and labor has been wasted. The local use of iodin and the sul-

9. Galippe: Die Infektiöse Artho-Dentaire Gingivitis, 1884.
10. Miller: Microorganisms of the Human Mouth.
11. Interstitial Gingivitis or So-Called Pyorrhea Alveolaris.

phocarbolates by the operator and a stiff brush by the patient, with proper care of the general system will cure all interstitial gingivitis and pyorrhea patients, if undertaken before the teeth become loose.

As I stated at the outset of this paper, more original research work is necessary before a proper course of treatment can be given.

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THE PROPHYLAXIS OF CEREBROSPINAL MENINGITIS

WITH SOME OBSERVATIONS AS TO CARRIERS *

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The most important contribution to the prophylaxis of cerebrospinal meningitis is the knowledge, recently acquired, that the causative organism—the *Diplococcus intracellularis meningitidis* of Weichselbaum — has its natural habitat in the nose and throat and that the disease is spread through the medium of an intermediary or healthy carrier. With these two facts well established, a formidable point of vantage in combating the spread of the infection is obtained.

The *Diplococcus intracellularis meningitidis* first obtains lodgment in the throat or the nasopharyngeal cavities, more frequently in the latter, these localities representing the original sites of infection and proliferation. As to the route the infection pursues from these points to the meninges, there is a diversity of opinion. A consideration of these differences will be of assistance and for this reason they will be treated briefly.

Exposure of the sinuses by splitting the skull sagitally fails to reveal to the naked eye any evidences of a direct extension of the mischief from the throat or nose to the cranial cavity. Some observers believe that the infectious process starts from the throat or the nose and through the cribriform plate makes its way to the base of the brain. For many reasons the theory of direct extension of this disease is not tenable, the foremost of which is that were the process by direct extension from the nose or throat, the lymphatics would be the route traversed. As an argument against this conclusion let us review some of the primary features of scarlatinal infection. Scarlatina is often associated with severe streptococcic infection of the throat, and the organism, the *Streptococcus pyogenes*, giving rise to this infected throat does so via the lymphatics, but practically never gives rise to a meningeal condition. Again, the cord suffers much more severely from the infection than does the base of the brain, demonstrating that cerebral damage is always secondary to that of the cord. It has been suggested that the *Diplococcus intracellularis meningitidis* is ingested and reaches the lymph-stream by way of the bowel. Those inclined to the "bowel infection" theory call attention to the great swelling and congestion of the mesenteric glands in meningeal conditions.

In view of the foregoing it is evident that the *Diplococcus intracellularis meningitidis* travels from the nose and throat to the cerebrospinal canal via the blood-route. In many cases the organisms have been found in the blood. The diplococcus first invades the blood-stream, and then localizes in the meninges because of its specific affinity for meningeal tissue. This specific affinity for meningeal tissue, however, would seem to be limited to human tissues, for all attempts to produce meningitis in animals by inoculations of the *Diplococcus intracellularis meningitidis* into parts more or less removed from the central nervous system have been unsuccessful. The organism has been obtained in pure culture from the pericardium, pleura, joints and spleen. In two cases the diplococcus gave rise to a malignant endocarditis. The organism has also been obtained from the urine of a patient suffering from the disease.

The blood invasion probably occurs in the following manner: The onset of the disease is insidious. In many cases there is throat infection associated with severe inflammatory reaction. Frequently the inflammation is so severe as to cause a membranous exudate not unlike that of diphtheria and frequently mistaken for this condition. In this exudate rests the *Diplococcus intracellularis meningitidis* enmeshed or lying in the leukocytes. The lymphatic absorption of such exudate might very well be accomplished by a blood invasion of the organisms free or within the leukocytes. Not every invasion of the blood, however, is followed by an infection of the meninges; it is usually necessary that there be some other factor leading to a lowering of tissue resistance or to an increase in the virulency of the organism. This predisposing factor may in some instances be due to trauma.

Another condition having a bearing on the selection of the cerebrospinal canal as the seat of the infection may be the properties of the cerebrospinal fluid and the blood-serum. The probability of infection would be regulated by the bactericidal properties of the cerebrospinal fluid and blood to the *Diplococcus intracellularis meningitidis*. Very frequently the blood-serum will exhibit a certain bactericidal action to the causative organism, while the cerebrospinal fluid will fail to show the slightest evidence of bacterial antagonism. This difference between the blood-serum and the cerebrospinal fluid in regard to those necessary factors of immunity would naturally point to the cerebrospinal canal as being a *locus minimæ resistantiæ*. Add to this the specific affinity of the meningitis diplococcus for meningeal tissue and it is not difficult to understand the manner in which the infection arises.

Reverting to the mode of transmission and the rôle the carrier plays in the spread of the disease, a great deal of our knowledge is based on the history of recent outbreaks of cerebrospinal meningitis. The disease is undoubtedly transmitted directly from person to person, for the *Diplococcus intracellularis meningitidis* is of such low vitality that it succumbs quickly to drying, sunlight and other noxious influences. Because of its virulency individuals suffering from the disease are decidedly restricted in their sphere of potential pathogenicity, and as only a very few of those who acquire the organism are sensitive or susceptible to it, the perpetuation and dissemination of meningitis must depend on the healthy carriers who transmit the diplococcus from one to another until an impressionable subject is reached—the result is infection.

The number of persons who are thus made carriers during an outbreak of meningitis is far greater than the number of cases of meningitis. Nearly one-fourth of all individuals residing in the immediate vicinity of meningitis cases act as meningococci carriers, harboring the germs in the respiratory passages without displaying any evidence whatever of disease or inconvenience. In,

* Studies from the Laboratory of Tropical Medicine and Hygiene under the direction of Creighton Wellman, Tulane University of Louisiana—No. 8.

apparently, the healthiest of subjects meningococcal organisms, in their maximum degree of virulency, have been isolated, and even the saliva has been found contaminated with the *Diplococcus intracellularis meningitidis*. Only occasionally do these bacterial carriers present signs of a nasopharyngitis, or symptoms of a mild meningococcic infection. In carriers the germs are rarely found in the anterior part of the nasal fossæ or in the regions of the tonsils, but they are abundant in the posterior part of the nasal chambers and in the rhinopharynx. Other persons equally exposed as carriers, but not inhabiting the same dwelling, rarely become infected. Aside from epidemic outbreaks, the germ is seldom discoverable in healthy persons; there are, however, occasional persons who, once sheltering the diplococcus in the nasopharynx, carry it permanently, thus perpetuating the disease. These chronic carriers are especially active during the periods intervening between epidemics. It appears that the *Diplococcus intracellularis meningitidis* can readily obtain a foothold on the mucous membranes of the majority of individuals, but with only a comparatively small proportion of these subjects is it able to invade the tissues and manifest its pathogenic effects.

To the present time there has been discovered no absolutely efficacious means of causing the disappearance of the *Diplococcus intracellularis meningitidis* from the respiratory passages, and especially the nasopharynx, of the carriers. Notwithstanding, there are certain measures within our power which, if rigidly observed, would tend to limit the extent and severity of epidemics. To rob this disease of its horrors—the high rate of mortality and pitiful postmeningeal sequelæ—means a persistent educational campaign on the broadest possible lines; to carry this educational campaign to a successful conclusion, it is essential that a few primary facts be recognized.

1. Earnest cooperation should be secured between the people and the health authorities, in the enforcing of all necessary health regulations.

2. The detection and isolation of all apparently healthy germ-carriers, the actual propagators of the disease, is essential.

3. Efforts should be directed toward rendering these apparently healthy germ-carriers harmless.

The work of the health authorities would embrace the ordinary sanitary control of the contagious diseases, such as diagnosis, notification, isolation or removal to a contagious diseases hospital, fumigation and disinfection. Quarantine measures to check the spread of this disease are not only absurd, but unscientific.

Household inspection by competent officials, to ascertain the sanitary conditions of back yards, alleys and outhouses, would prove beneficial to the health of the community in various ways. Tenement inspection should be conducted by those especially trained in this branch of service. Defective plumbing and insufficient toilet requirements should be made the subject of special investigation and correction. In rural districts, soil pollution should be inquired into closely. Particular efforts should be directed to the extinction of the fly, the louse, the roach, the bedbug and the rat in living quarters.

Garbage disposal should be conducted under the supervision of the health authorities working in conjunction with the department of public works. Street cleaning and paving should be brought up to the highest possible state of efficiency.

Circulars of information, dealing with the prophylaxis of the disease and the dangers of carriers, should be distributed to the pupils of public and parochial schools, and the children should be impressed with the necessity of taking them home for their parents also to read. In addition, these circulars of information should be distributed through the various industrial plants of a community or those places where the number of employees is large.

Medical inspection of school children should be thorough and efficient. A particularly distressing feature, in summarizing the beneficent results of medical school inspection, is the antagonistic attitude displayed by those in charge of private and parochial schools to this most necessary educational, hygienic and health-conserving measure. Some provisions should be made for the medical inspection of the pupils of private and sectarian schools. During epidemic periods rhinologic and laryngologic examinations in schools, orphanages, and like institutions, should be conducted by specialists in that line. An earnest and scientific cooperation between the medical school examiner and the bacteriologist would promptly lead to the detection of carriers among school children. This alone would bring about the isolation of many carriers. Lectures on oral and nasal hygiene should be delivered to the pupils of public and private schools and the inmates of all public institutions. The children should be given practical demonstrations of the correct methods of brushing the teeth, blowing and cleaning the nose, and, if necessary, syringing that organ, and gargling and rinsing the mouth. Inquiries should be made every morning of all school children as to any illness existing at home; by so doing it is often possible to check the spread of many contagious diseases. School-teachers should be acquainted with the elementary outlines of the disease in order that they might impart to their pupils certain prophylactic principles.

Popular lectures to the public on the same plan as that followed in San Francisco during the recent plague, and in New Orleans during the period of the yellow fever epidemic in 1905, would also prove fruitful.

The scope of the powers of the health authorities should be so regulated that these powers might be amplified at any time according to the needs of the situation.

A very important question, and probably the weightiest, in the prophylaxis of cerebrospinal meningitis is what to do with the carrier once he is detected, always remembering that the carrier has certain recognized rights; and, secondly, what means of prevention are necessary for the individual to adopt to avoid becoming a carrier.

Once a carrier of the disease is recognized as such, he should be placed in care of the health authorities for observation and treatment. During this period he should be treated by a throat and nose specialist, working in conjunction with a trained bacteriologist. It should be the aim of the attending physician to bring about a condition of bacterial freedom in the regions of the throat and nose. By some means the *Diplococcus intracellularis meningitidis* should not only be turned out of its natural habitat—the respiratory tract—but also completely extinguished. All carriers, especially the chronic, should be inoculated with the antimeningococcal serum. The results of the bacteriologic examinations should be the gauge as to the efficiency of whatever treatment might be adopted. In cases of chronic carriers we should endeavor to restrict their sphere of activity and impress on them their danger to the public, and instruct

them accordingly. Special directions as to spitting, sneezing and coughing should also be a part of the instructions to carriers. Fomites, such as handkerchiefs, spoons, cups and so forth, which have become contaminated by carriers, may infect susceptible persons and should be disinfected or destroyed.

In the prevention of carriers oral and nasal hygiene should be made a part of the daily routine. All faucial or nasal irritation should be inquired into. One way to avert the disease is to keep the teeth well brushed, the mouth and throat as clean as possible and the nasal cavities clear and clean. The public should be taught not to hesitate to gargle or rinse the mouth with a good oral antiseptic; to have no fear of a tooth-brush, and to display no antipathy to a nasal douche, if one is necessary. These measures will in all probability minimize the possibilities of contracting cerebrospinal meningitis when the disease becomes epidemic in any section.

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CONTUSION OF THE CHEST FOLLOWED BY PERSISTENT HEMOPTYSIS AND PRESYSTOLIC MURMUR AND THRILL*

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The following case, sent to me in April, 1911, has been under my observation from time to time for nearly six months. It is reported as a contribution to the subject of valvular disease of the heart following traumatism.

The physician who sent the patient to me is a very well-trained and careful practitioner, and had had personal knowledge of the patient for more than six years prior to the accident, had attended his family and had occasionally prescribed for him in trifling ailments. This physician regarded the patient as a healthy man, always able to discharge the duties of an occupation calling for irregular but severe muscular effort, and absolutely free from rational symptoms or physical signs suggestive of disease of the lungs or heart.

History.—G. A. B., aged 36, married, is a lock-tender by occupation and a hearty-looking, stout fellow of medium stature. About the middle of December, 1910, he received, as the result of a boat fouling one of the gates, a violent blow on the left chest from the heavy balance-beam, against which he was leaning, and was thrown to the ground with great force, striking on his breast. He was able to rise but had severe pain in the left side of his chest and symptoms of shock. In a little time he had an abundant hemoptysis, the blood being bright red and frothy and coughed up without effort. There was no evidence of fracture of the ribs. In the course of a day or two recovery from the other immediate effects of the accident appeared to be complete but the blood-spitting continued. It occurred every eight or ten hours for about three weeks and subsequently at longer intervals until this date, April 14, 1911. The attacks came on with a sense of oppression followed by cough and spitting of red, frothy blood. At present there is mucus mixed with blood every morning and two or three mouthfuls of pure blood every few days, otherwise there is no cough or expectoration of any kind. The family history and previous personal history have no bearing on the present condition. It is to be noted that the patient had a mild attack of enteric fever in his early youth and that he has never had rheumatic fever, nor can he recall having had tonsillitis.

Examination. (April 14, 1911).—Patient complained of an inconstant precordial pain which sometimes extended to the left shoulder, especially just before an attack of blood-spitting. There was more or less constant sense of weight in the lower part of the left posterolateral region of the chest. Dyspnea and palpitation were absent. There was a very slight relative diminution of respiratory excursus over the lower part of the left chest with diminution of resonance. The respiratory murmur was normal everywhere with the exception of some enfeeblement in this region and there were no râles. Pulse was small and regular, 80-84; respiration, 18-20; temperature, 98 F. Blood-pressure (Pachon) corresponded to systolic 125, diastolic 80 mm. Hg. The heart was slightly enlarged in its transverse diameter, the apex being about 1 cm. to the left of the mid-clavicular line in the fifth intercostal space. Indistinct pulsation in the second and third intercostal spaces to the left of the sternal border was present. On auscultation the following signs were noted: Faint systolic murmur in the aortic area (not heard at subsequent examination), very faint aortic second sound; accentuation of second sound in pulmonary area; loud, rumbling presystolic murmur accompanied by a thrill, both being intensified by exertion, in the mitral area and to the right of it and a snapping first sound coincident with the palpable impulse. At this time the second sound was not reduplicated. There was no tracheal tugging or other sign of aneurysm; no friction rub or other sign of pericarditis. The urine was normal.

Course.—Oct. 13, 1911: There are small blood-spittings every day and eight or ten large ones amounting to half a tumblerful or more two or three times a week. The presystolic murmur and thrill are more intense and are increased on effort, as in walking. Pulse small, with well-filled arteries, 80 in recumbent, 90 in erect posture. Blood-pressure corresponding to systolic 120, diastolic 80 mm. Hg.

November 15: Very little change in subjective sensations of the patient. He says that he has not lost a pound and that he feels quite well except for the blood-spitting which alone prevents his returning to work. The pain in the chest and shoulder has disappeared. There is slight relative dulness over lower part of the left chest and the inspiratory expansion is less than on the right side. Cardiac dulness at the level of the fifth costal cartilage extends 6 cm. to the right and 10 cm. to the left of the median line. Indistinct pulsation in second and third intercostal spaces to left of sternal border. The systolic murmur in the aortic area is no longer audible and the aortic second sound very faint. There is marked accentuation of the second sound in the pulmonary area with reduplication and a coarse, rumbling, low-pitched presystolic murmur over the body of the heart mesially to the apex, accompanied by a very distinct thrill restricted to the same area. At the apex is heard a faint systolic murmur, which is transmitted toward the axilla. Blood-pressure, systolic 150, diastolic 100. Examination of the blood gave the following result; hemoglobin, 67; red blood-corpuscles, 4,100,000; white blood-corpuscles, 16,600; color index, 0.8+; polynuclears, 66 per cent.; lymphocytes, 25 per cent.; hyaline, 6 per cent.; eosinophils, 1 per cent.; transitionals, 2 per cent. It is important to note a leukocytosis of 16,600.

Examination of the fluid expectorated in the night preceding the patient's visit to me yielded the following facts:

The specimen consisted of 250 c.c. of bloody fluid, partially clotted, neutral in reaction and containing no elastic fibers. Treated with acetic acid it showed a few epithelial cells and numerous leukocytes. Tubercle bacilli were not present in the centrifugated sediment either by the Ziehl-Neelsen or the antiformin method.

Pulse 80, small and regular; temperature at 11 a. m., 98 F.; no dyspnea, edema or other general manifestation of cardiac disease.

Eleven months after the accident the general condition of the patient was the same. The signs of mitral stenosis were more distinct, reduplication of the second sound at the base had appeared and there were evidences of some increase in the size of the right ventricle. The blood-spitting continued and was wholly uninfluenced by treatment. Various drugs had

*Read before the Section of Medicine of the College of Physicians, Philadelphia, Nov. 27, 1911.

been administered in conventional doses, the spirit of glyceryl trinitrate, stypticin, the oil of erigeron, various preparations of digitalis and iron, without effect. Periods of rest in bed had not prevented the recurrence of hemoptysis.

Taken as it now presents itself, the case has the features of a well-developed mitral stenosis with good compensation and a marked tendency to bronchopulmonary hemorrhage. This symptomatic manifestation of mitral disease, especially of mitral stenosis, is much more common than the text-books would indicate. In fact, most of them and some of the special treatises on diseases of the heart do not mention it at all. Among the more recent authoritative statements in regard to the matter are those in the article on mitral obstruction by the late A. E. Sansom,[1] and in James Mackenzie's remarkable monograph on diseases of the heart.[2] The former writer states, after calling attention to the fact that epistaxis is one of the earliest symptoms to attract attention in this form of chronic valvular disease, that hemoptysis has often been recorded and that it also occurs in the course of the lung affections in this disease, while the latter affirms that "at various stages patients may be seized with great bleeding from the lungs. Here doubtless the cause is the back-pressure in the pulmonary circulation and rupture of the blood-vessels." And he adds, "As a rule this is a grave sign, the patient dying sometimes shortly after an attack." I have never seen this accident and cannot concur in this opinion. On the contrary, hemoptysis in mitral stenosis, though often very alarming, is usually followed by abatement of the cardiac symptoms and sometimes by prolonged improvement. I have recently reported two cases which are interesting in this connection.[3]

A woman, 52 years old, the mother of four children, consulted me in 1906 for blood-spitting in small amounts, from which she had suffered for ten years. There were well-characterized signs of mitral stenosis. She had never had rheumatism, chorea or puerperal sepsis. There had been no habitual cough and there were neither symptoms nor signs of pulmonary tuberculosis. Tubercle bacilli were not found in the sputa. Her weight had risen from 136 to 150 pounds. She came again, Sept. 22, 1910, stating that she had been entirely free from blood-spitting until May 20, 1910, when she had a single copious bleeding amounting to "at least a quart." Since then she had been well. There were at this recent examination no pulmonary signs whatever and she had neither cough nor expectoration. The signs of mitral disease were the same as four years previously and she complained of slight dyspnea on exertion, but nothing else.

A Jewess, 45 years old, seen in consultation, was unable to recall any attack of rheumatism and regarded herself as well except for some shortness of breath on exertion, which she attributed to increasing weight. Coming home from the theater this patient was seized with profuse hemoptysis, which continued until the following day. There were no signs or symptoms of pulmonary tuberculosis and no tubercle bacilli in the clots, but a coarse presystolic thrill, a loud rumbling murmur at the same period in the cardiac cycle and absolute absence of cough or expectoration after the hemorrhage ceased, which it presently did, showed that it had been due to stenosis of the mitral valve. After several months this patient remained free from hemoptysis.

These hemorrhagic cases of mitral stenosis are very often erroneously regarded as irregular or obscure cases of pulmonary tuberculosis.

With reference to traumatism as a cause of mitral disease, and in particular of mitral stenosis, symptomatic writers are even more silent. The authors in Allbutt's "System"[4] make, however, the following very positive statement:

Traumatic influences occasionally give rise to the lesions of mitral obstruction. Indirect injury very rarely produces any changes in the mechanism of the mitral valve unless there has been previous disease, but direct violence, such as a blow on the anterior chest-wall, is not a very rare cause of the affection.

Bernstein,[5] in 1896, collected the reports of cases of heart disease directly following traumatism, 124 in number, but a careful examination of this list shows a very limited number in which the valves were implicated and not one which presents the characters of my Case 1. Stern's monograph,[6] "Die traumatische Entstehung innerer Krankheiten," contains a limited number of further cases of valvular disease, but none like this one. Riesman[7] reported a case of mitral stenosis of traumatic origin in which the injury was indirect, being the result of violent exertion on the part of the patient in fleeing from footpads. In most of the cases reported the signs of valvular lesions have been attended by indications of acute endocarditis and in a large proportion the diagnosis has been established or confirmed by necropsy.

In the above case a leukocytosis of 16,600 at this late period and the evidence of a persistent, though gradually subsiding, congestion of the lower lobe of the left lung, probably associated with a low-grade chronic bronchopneumonia, may be invoked to account for the continuing blood-loss in connection with an advancing mitral stenosis.

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1. Revised by G. A. Gibson in the later edition of Allbutt and Rolleston's System of Medicine, 1909, vi, 366.
2. Mackenzie, James: Diseases of the Heart, 1908, p. 226.
3. Wilson, J. C.: Pa. Med. Jour., May, 1911, p. 596.

SALVARSAN IN PERNICIOUS ANEMIA*

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Miss E. V. (nurse) had been in California, where the diagnosis of pernicious anemia was made. Oct. 10, 1911, the blood examination showed a typical picture of pernicious anemia, with great numbers of megaloblasts, and all the other concomitant features. The red-cell count at this time showed 887,000. Physical examination was negative, except for slight cardiac dilatation. The patient had had large quantities of iron and arsenic before reaching the city. Oct. 10, 1911, 0.3 gm. salvarsan in sesame oil was given in the gluteal region by Dr. Tauber. This was repeated October 18. Hypodermic injections of cacodylate of iron, gr. 1, were then begun and were administered on alternate days, twenty-seven doses being given. The patient's improvement was rapid and, as can be seen from the table, she now presents no evidence of pernicious cachexia. Her diet has been meat-free with large quantities of buttermilk. The blood-picture is now merely that of a mild anemia. Details of the blood-counts can be seen from the accompanying table. It is, of course, too early to pronounce the patient cured; but the changes after the administration of salvarsan were certainly very striking.

Date	R. B. C.	W. B. C.	Hb.	Col. Ind.	Stain Spec.
10/10/11	887,000	7,200	20	1.1	Typical pernicious.
10/23/11	820,000	4,800	17	1.1	Large numbers of normoblasts.
10/31/11	1,060,000	6,600	19	0.8	
11/ 6/11	2,537,000	6,800	25	0.8	
11/20/11	2,670,000	8,200	45	0.8	
11/28/11	2,900,000	7,400	43	...	Very few indicated reds.
12/11/11	2,820,000	6,800	45	...	
12/21/11	3,200,000	6,400	52	...	

Salvarsan, 0.3 gm., in sesame oil each on October 10 and October 18; on October 27, iron cacodylate, gr. 1, hypodermatically, and every other day thereafter, twenty-seven doses in all.

4. Allbutt's System of Medicine, 1909, vi, 340.
5. Bernstein: Ztschr. f. klin. Med., 1896, xxix, 519.
6. Stern: Verhandl. d. deutsch. path. Gesellsch., 1908, xii, 172.
7. Riesman: THE JOURNAL A. M. A., Sept. 20, 1911, p. 1126.

* Reported before the Clinical Society of the Cincinnati Hospital, Dec. 21, 1911.

THE HORMONES, WITH SPECIAL REFERENCE TO PERISTALTIC HORMONE*

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DETROIT

It has been demonstrated recently that the cells of the mucous membrane of the stomach elaborate a chemical substance that stimulates the peristalsis of the intestine. Starling calls such a substance which has a specific action a hormone. The term is derived from the Greek word ὁρμάω, meaning "to stimulate." The hormones are formed during normal metabolism and stimulate certain cells. In the stomach we find a gastric hormone secreted in the antrum pylori. When absorbed, this substance induces the secretion of gastric juice. It is an essential peculiarity of most hormones that they act on other organs of the body, whereas the hormones of the gastro-intestinal tract have no influence on the general system. The hormones of the digestive apparatus act on the digestive secretion, exciting the sense of taste and inducing the secretion of the peptic glands. These peptic glands are stimulated, as Gross and Edkinds[1] have shown, from the antrum pylori by way of the blood. If the extract of ground mucous membrane of the antrum pylori is injected into dogs with a solution of hydrochloric acid, meat extract or peptone, the glands in the fundus of the stomach begin to secrete. Extracts of the pylorus mucous membrane by themselves or extracts of the fundus mucous membrane treated in a similar way do not produce this result. We may assume, therefore, that the antrum mucous membrane, being stimulated by the meat extract, produces a hormone, the so-called gastric secretin, which after absorption stimulates the secretion of the gastric juice. This, I believe, has as yet not been sufficiently recognized in gastric diagnosis.

Curschmann and others have attempted to substitute an appetite-meal for the Ewald test-breakfast, by which, through stimulating the secretion of the gastric juice, the effect is determined by the sense of taste through the nervous system. But this would make the examination dependent on the changing factor of taste and the mental poise of the patient. While, of course, the item of taste cannot be entirely ignored as a stimulant of secretion of the gastric juice, a more uniform result can be obtained by the ordinary test-meal which assures the formation and the action of secretin. Borchardt has given a bouillon test-meal consisting of 250 c.c. of hot water and Maggi cubes, with a roll or a slice of bread, and he has been able to ascertain a percentage of acid similar to that obtained by the Ewald method.

In the intestinal mucous membrane there is another hormone, which stimulates the secretion of the pancreatic juice. It is elaborated by the action of the hydrochloric acid of the gastric juice on the intestinal epithelium. The question of the intensity of the secretion of the pancreas in case of achylia gastrica is not yet cleared up. A number of tests have been made but the proof, whether there is a reduced or an entirely suspended function of the pancreas, has not yet been determined. Tabora's investigation shows the probability that a reduction of the secretion of the pancreas is present in achylia. He found very serious disturbances of protein absorption which could be corrected by the giving of hydrochloric acid by the mouth. A positive result, however, from the Schmidt sac-test has as yet not been obtained.

The existence of a lacteal or mammal hormone is proved by the observation of Baasch on the Blazek twins; these twins are united by a broad commissure in the sacrococcygeal region, but are otherwise fully developed normal individuals. After one of them became pregnant, following delivery, lacteal secretion took place also in the non-puerperal sister.[2] Since the blood of one sister enters, by way of the commissure, into the other, it is evident that the hormone of the gravida has actually induced the lacteal secretion in the non-gravida.

Seitz[3] believes that a pathologic ovarian hormone is the natural exciter of the growth of uterine myomata. That the growth of the latter is arrested by ovariotomy is well known. It is also well understood that the ovary possesses a principle — or principles — which stand in close relationship not only to menstruation and uterine hyperplasia but also to growth and nutrition of organs which bear no known relation to sex, as well as to organs which possess secondary sexual characteristics. The same principle which presides over the increase of the muscle-fibers of the uterus in pregnancy is also responsible for the growth of uterine myomata; but in the latter case the hormone is no longer physiologic but the product of a diseased ovary. That uterine myomata have a tendency to increase in size during pregnancy is well known, as is also the opposite tendency to decrease in size after the puerperium. The favorable action of the *x*-rays on myomata appears to be due to their destructive action on the ovaries.

The hormone which has thus far been best studied is epinephrin.[4] It regulates the pressure of the blood and also the mobilization of the sugar in the body. We are indebted to Zuelzer and Blum for the latter demonstration. It has also been observed that the pancreas hormone, which is the product of secretion of the pancreas, antagonizes and neutralizes the epinephrin, and may therefore be designated as the pancreas anti-hormone. Starling attributes therapeutic importance to it, its possibilities having been demonstrated in a few cases of grave diabetes. Hansemann explains the absence of diabetes after the complete destruction of the pancreas through carcinoma, by the fact that the carcinomatous tissue has assumed the function of the organ in which it originated. All glands with internal secretions have something to do with carbohydrate metabolism. The most frequent disturbance of metabolism is diabetes mellitus, and it has a relation to the internal secretion of the pancreas. Mering and Minkowski have shown that the total extirpation of the pancreas produces grave, fatal glycosuria. Still, despite the most thorough-going experiments, it has not been possible to obtain anatomic evidence in all cases of pancreatic diabetes in man. The views of Lepine,[5] O. Cohnheim,[6] R. Hirsch and J. de Meyer[7] that in diabetes pancreaticus the destruction of sugar in the blood is deficient has not been generally accepted. Glycosuria plays a subordinate rôle in diabetes, even if it should be proved that the excretion of sugar is reduced. Much more important are the derangements in the glycogen metabolism in the liver. The fact that pancreatic diabetes appears after section

* Read before the Wayne County Medical Society, Dec. 11, 1911.

1. Gross and Edkinds: Arch. f. Verdauungskr., 1906, xii, 507; Jour. Physiol., 1906, xxxiv, 133.

2. Baasch: Deutsch. med. Wehnschr., 1910, No. 21.
3. Seitz: Med. Rec., New York, 1911, No. 23, p. 142.
4. Dohrn, Marxer and Zuelzer: Deutsch. med. Wehnschr., 1908, No. 32.
5. Lepine: Soc. de biol., 1892.
6. Cohnheim, O.: Ztschr. f. physiol. Chem., 1903, 39, 42, 44.
7. Hirsch, R., and de Meyer, J.: Soc. de biol., 1907, No. 63, 385.

of the splanchnics shows that the internal secretion of the pancreas acts on the liver and not on the central nervous system. It is therefore assumed that the pancreas hormone controls the nerves of the liver, and that after the removal of this check, the increased production of glycogen leads to glycosuria. It is more probable that the pancreatic hormone favors the formation of glycogen in the liver and that, after the cessation of the function of the pancreas, there is a reduction of glycogen in the liver. The internal secretion of the suprarenal capsules and the hypophysis are antagonistic to the hormone of the pancreas. They also remain operative after the section of the splanchnic nerves. It is not known whether they influence the formation of diastatic ferments in the liver. It is probable that the pancreas hormone favors the formation of glycogen, while the hormone of the suprarenal capsules, thyroid and the hypophysis checks it. In fact, a distinction is already being made between hormones which are aggressive and stimulate certain organs or check excessive activity in other organs, and other hormones whose function is rather to annihilate certain noxious substances which might otherwise enter the circulation of the organism. Such a one is the anti-hormone which, as Blum believes, neutralizes the intestinal toxins entering into the circulation of the organism.

Zuelzer[8] observed the specific effect which peristaltic hormone has in stimulating intestinal peristalsis and uses the splenic substance for the production of it for therapeutic purposes. This hormone is probably developed in the gastric mucous membrane and is stored up in the spleen. In fact, this organ is regarded as a storage-place for the peristaltic hormone because it contains these in large quantities. The peristaltic hormone has the capacity of stimulating the peristalsis of the intestine. It was found at first in the mucous membrane of the stomach, later in abundant quantities in the spleen; and it has been used in chronic constipation and in acute paralysis of the intestine. But the treatment is not altogether without distress, for it frequently causes pain and fever. If used for therapeutic purposes this peristaltic hormone must be introduced intravenously or intramuscularly and its absolute sterility must therefore be made certain. It has, in fact, been found that its intramuscular introduction produced pain and a rise of temperature, and the intravenous method is being preferred owing to the fact that it reduces the pain, fever and discomfort to the patient.

The observed fact that the hormone stimulates intestinal peristalsis, led quite naturally to its employment in chronic constipation. In spastic constipation we have an overstimulation of the intestine and the use of the hormone in such cases is, of course, irrational. In the atonic form, however, the hormone becomes valuable. Zuelzer[8] reports success in 71 per cent. of many cases of chronic constipation, in which evacuations had previously not been possible for a period of years without cathartic or enemas. He feels himself justified in urging that, in the light of the discovery of the peristaltic hormone, the whole subject of constipation be revised. He suggests two theories with regard to the nature of the therapeutic effect of the peristaltic hormone. In the first place, in cases of chronic constipation we have a complete absence of the normal production of the peristaltic hormone or a quantitative insufficiency of it. When peristaltic hormone is introduced, it stimulates the beginning of a normal elaboration of it in the body. And in the second place, it may be that the stimulus for the start of the intestinal peristalsis in atonic chronic constipation is produced when the hormone is administered, by the intervention of the nervous system. The hormone may exert a specific stimulant action on the abdominal ganglia. The ability to convey the stimulus may have been disturbed or dulled. An artificial saturation of the organism with peristaltic hormone may vigorously stimulate the nerve-cells and enable the body to react again to the normal stimuli.

Zuelzer uses 40 c.c. of peristaltic hormone for an adult and 20 c.c. for children. The injection is made only once and the median vein is the best place for it. The skin is prepared aseptically and an Esmarch bandage applied on the upper arm to make the vein prominent. The fine needle of the syringe is introduced into the vein, the Esmarch bandage loosened and the contents of the barrel of the syringe are slowly forced into the vein. The needle is removed and a slight pressure with gauze is applied to the point of entrance. A small piece of adhesive plaster is then applied. Usually no reaction ensues. It is advisable to follow up the injection with one dose of castor oil. It serves as a lubricant while the hormone induces the normal peristaltic action. As against other remedies employed in chronic constipation, the peristaltic hormone has the superior merit that, having started evacuation, there is no need to inject more of it.

Henle,[9] Saar[10] and Unger[11] studied the action of peristaltic hormone, in postoperative intestinal paresis, in the case of epileptics who had previously suffered from chronic constipation, and in the case of an almost moribund patient, with total intestinal paresis, with intestinal loops partly obstructed by inflammation, and proved that the peristaltic hormone is an innocuous substance. Several cases of ileus, in which intravenous injection of the peristaltic hormone was made in patients who were advanced in years, and who had some time previously been operated on, show that peristaltic stimulation produced by the hormone is not violent and causes no grave disturbance even if there is organic derangement and obstruction.

Zuelzer thinks that the peristaltic hormone may turn out to be also a means for differential diagnosis, for he cites a case of an aged man concerning whom it had been previously impossible to decide whether the constipation he was subject to was due to a volvulus, incident to an intestinal tumor, or to an obstruction of the intestine by the tumor. The administration of the peristaltic hormone, however, produced a visible peristalsis which could be demonstrated by auscultation. It is likely that further experiments will bear out Zuelzer's hope that a negative result after an intravenous injection of peristaltic hormone may constitute a diagnostic proof of an organic stenosis or of the absence of a paralytic or dynamic ileus.

Saar,[10] who reports three interesting cases of successfully treated chronic constipation, suggests that the injection be made in the early morning hours; he further suggests the use of a lubricant, that is, of an ample dose of castor oil. He calls attention, however, to a case of an old, arteriosclerotic patient, with accumulations of feces in the sigmoid flexure, which could not be dislodged by the treatment with the peristaltic hormone. Though both intravenous and intramuscular

8. Zuelzer, G.: Med. Klin., 1910, No. 11.

9. Henle: Zentralbl. f. Chir., 1910, No. 42.
10. Saar: Med. Klin., 1910, No. 2.
11. Unger: Berl. klin. Wchnschr., 1911, No. 11.

methods are followed by similar effects of a fairly painless character, Zuelzer and Henle[12] prefer the intravenous to the intramuscular injection.

My observations in the Hasenheide Hospital in Berlin lead me to the belief that we have in the peristaltic hormone treatment of constipation a new and very promising method. To be sure, it is in this instance, as in all instances of medication, necessary to discriminate. The peristaltic hormone treatment must not be regarded as a cure-all and in the end, it must be left to the judgment of the practitioner whether or not he has a case at hand for its proper application.

32 West Adams Avenue.

FOCAL FATTY DEGENERATION OF THE MYOCARDIUM ASSOCIATED WITH LOCALIZED COLONIES OF SPIROCHÆTA PALLIDA*

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Focal fatty degeneration of the heart-muscle due to the presence of localized colonies of the *Spirochæta pallida* in the heart-wall has not previously been described. Nor has fatty change in the myocardium been regarded as due primarily to the syphilitic infection by any writer except Guggenheimer (1897), who reported a rare form of fatty degeneration of the heart in a syphilitic infant. He was, however, unable to prove any definite relationship between the syphilis and the cardiac lesion. In an article on "Congenital Syphilis of the Heart,"[1] I have described a characteristic form of focal or diffuse myocarditis due to the presence of the *Spirochæta pallida* in the stroma of the heart-wall. In the description of this form of cardiac lesion I called attention to the occurrence of fatty degeneration of the heart-muscle in and about the foci of myocarditis, and also to the presence of patches of markedly vacuolated fibers in the neighborhood of the larger blood-vessels, these patches being free of cellular infiltration and proliferation. In these areas of marked fatty degeneration around the larger blood-vessels fewer spirochetes were found than in the areas of interstitial change. It was, therefore, suggested that the fatty change was more likely the result of localized circulatory changes than of the presence of the spirochetes themselves.

Since the publication of that article I have been extending my observations on cardiac syphilis with a large number of new cases of congenital syphilis, and in every case have found fatty degeneration of the heart-muscle to be present, either as a diffuse fatty change or as a focal process. The diffuse fatty change is found in the more severe cases of diffuse interstitial change, and is associated with the cellular infiltration, fibroblastic proliferation and myxomatous stroma of this form of syphilitic myocarditis. In lesions of this type spirochetes are always found in great numbers. The focal fatty areas may occur independently of any infiltration or proliferation, or of any vascular obliteration. They often, however, represent definite colonies of spirochetes lying between the degenerated muscle-fibers. The space between the muscle-fibers is increased without any proliferation of the stroma, the intercellular substance appearing semifluid. Kresyl-echt-violett often gives a decided mucin reaction in these intercellular spaces. With hematoxylin and eosin preparations the appearances of these areas suggest simply an edema with fatty degeneration of the muscle-fibers. As a rule the number of spirochetes in these focal areas of fatty change is not so great as it is in the areas in which the stroma shows a more marked change. The relation of the colony of spirochetes to the fatty area is, however, very clear.

As every transition-stage may exist between the areas of fatty change without interstitial change to the more severe lesions characterized by both the pale and fatty degeneration of the muscle-fibers with marked changes in the interstitial tissues, I believe that the colonies of spirochetes associated with focal fatty change alone represent either a milder or a more acute infection. In very mild or latent infections I have found colonies of spirochetes in tissues showing no histologic changes at all.

Focal fatty degeneration of the myocardium, either alone, or associated with the picture of a myocarditis, occurs in other infections (diphtheria, typhoid fever, small-pox, scarlatina, streptococcus septicemia), and may also occur in fatty embolism, leukemia, chronic nephritis, chloroform poisoning and other conditions. It may be caused by a local tissue-asphyxia, or by the action of parasites or their toxic products. It is usually the *primary lesion* of a focal myocarditis, and may be the only change apparent in the muscles, although most frequently associated with the pale, hyaline muscle-degeneration or cloudy swelling. As far as the organism of syphilis is concerned it may cause a focal or a more diffuse degeneration of the myocardium before any interstitial changes occur; in other words, the *Spirochæta pallida* may cause a purely parenchymatous change in the heart-muscle. I also believe that this parenchymatous lesion may heal without an interstitial reaction. In a late stage of congenital syphilis I found calcification of some of these focal areas of fatty degeneration, while others were being replaced by hyaline connective tissue very poor in cells and without cellular infiltration. Focal fibroid areas as well as focal calcification of the degenerate muscle-fibers can, therefore, follow the primary lesion of the myocardium caused by the spirochete of syphilis.

E. R. Cullen[2] has collected reports of cases of spontaneous focal myocarditis with calcification of degenerated muscle-fibers, adding two cases of his own. In none of the reported cases is syphilis considered as a possible etiologic factor, nor does Cullen consider it as a possibility in his two cases. Nevertheless, his description of the myocarditis in his second case and his Figure 3 are so very much like the focal changes due to the presence of spirochetes that I am led to believe that his second case at least was syphilitic. In conclusion:

1. Focal or diffuse fatty degeneration of the myocardium may be associated with the presence of numerous spirochetes of syphilis, without reaction on the part of the interstitial tissues. Such changes probably represent a very acute or mild (latent) infection. It occurs very frequently in congenital syphilis.

2. Calcification or fibroid change may follow the parenchymatous change without a definite interstitial inflammatory reaction. In such areas the spirochetes are few in number or have entirely disappeared, according to the stage of the secondary process.

12. Zuelzer and Henle: Zentralbl. f. Chir., 1910, No. 42.

* From the Pathological Laboratory of the University of Michigan.

1. Warthin: Am. Jour. Med. Sc., 1911, cxli, 398.

2. Cullen: Bull. Johns Hopkins Hosp., 1906, xvii, 267.

AN IMPROVISED NOISE-PRODUCER FOR DETERMINING UNILATERAL DEAFNESS

EDMUND PRINCE FOWLER, M.D.
NEW YORK

It being manifestly impracticable for a surgeon to have always at hand one of the bulky and expensive noise-producers operated by the electric current or by compressed air, and cases often presenting which require immediate diagnosis as to the presence or absence of unilateral deafness, the improvisation of a noise-producer becomes necessary.

This may be very satisfactorily accomplished by using a piece of ordinary rubber tubing, or better an otologic auscultation tube, or a stethoscope, one ear-piece being stopped up, if it is a double instrument. One end of the device should be inserted into the patient's ear, using care to prevent any occlusion of the lumen of the tube or ear. The other end should be held a few inches below and in front of the operator's mouth, and a fine column of air blown through the lips into and across the extremity of the apparatus thus adjusted. If a stethoscope is used, blow into its bell. The blowing will produce a loud confused roaring sensation in the hearing ear, and will prevent this ear from detecting any other sounds. If, while this is operating, a third person talks or shouts into the ear under examination, the patient will hear the shouting only if the deaf ear possesses some power of sound perception. This simple device will cut off all perception of sound by air, or by bone conduction. This may be proved by using a double stethoscope in normal ears, and blowing into the bell.

If necessary the patient can do the blowing, but this is not, for obvious reasons, as satisfactory a method of procedure.

Vibrations from the lower tuning-forks will often be felt, and misinterpreted as sound sensation. Patients must be cautioned against this mistake.

616 Madison Avenue.

Therapeutics

PRESCRIPTION NONSENSE

EXPECTORANT MIXTURE FOR CHILDREN

The following prescription received large circulation by being copied by one of our best journals, from a recommendation by one Sheffield in *Merck's Archives*, of December, 1910. This mixture is supposed to be a treatment for bronchitis and bronchial pneumonia in children, and to produce "free expectoration":

"℞.

Ammonium carbonate	gr. xvi.
Wine of ipecac	℥ss
Compound syrup of squills	℥i
Fluidextract of squill	8. c.c.
Fluidextract of senega	8. c.c.
Antimony and potassium tartrate	.2 gm.
Purified talc	2. gm.
Sugar	75. gm.
Water, to make	100. c.c.
Syrup of senega	℥i
Syrup of tolu	℥iv
Distilled water	q.s. ad. ℥ii

M. et Sig.: One teaspoonful every two hours for a child 2 years old."

CRITICISM

1. There are supposed to be sixteen doses in this prescription. Therefore each dose would represent 1 grain of ammonium carbonate. As a matter of fact, a teaspoonful represents more than one fluidram, and unless the dose is taken in a medicine glass, there will not be eight doses to each fluidounce. Therefore, the patient gets more than the physician intended.

2. While the dose of ammonium carbonate is small, there seems to be no good reason why the irritant ammonium carbonate should be preferred to the almost non-irritant ammonium chlorid. Ammonium chlorid seems to act as a stimulant to mucous membranes of the body, and especially of the respiratory tract. Ammonium carbonate seems to act as an ammonia, and therefore is more or less of a circulatory stimulant. As an expectorant only, ammonium chlorid is far better than ammonium carbonate, to say nothing of the difficulty, on account of the irritant effect on the throat and stomach, of administering the latter to a patient.

3. This child, 2 years of age, would receive at each dose about 2 minims of wine of ipecac, according to the prescription. As a matter of fact, the wine of ipecac is a 10 per cent. preparation from the fluidextract of ipecac. This fluidextract solution in alcohol and white wine is precipitated by the water into which it is put. Therefore, it is very doubtful if each individual dose would represent any regular quantity of ipecac. The wine of ipecac should be given in alcoholic solution, or else given alone; in the next place, the official wine of ipecac is not needed. A small dose of fluidextract, if that is what is desired, could be given, dropped into water or other menstruum at the time of administration. The value of the wine of ipecac in the above prescription is mythical. Ipecac is a valuable expectorant, promoting secretion, but if given in a mixture should generally be used as the syrup of ipecac.

4. This little patient receives at each dose about 4 minims of compound syrup of squills. The compound syrup of squills contains fluidextract of senega (why repeat the syrup of senega?) and tartar emetic. There is no question that compound syrup of squills, if given in sufficient dose, is depressant and promotes all secretions, and therefore that of the bronchial tubes and that of the skin. Incidentally, if not carefully watched, it produces nausea, vomiting and prostration, which are not desirable in a child two years old, suffering from bronchitis or bronchial pneumonia. This miserable and time-honored mixture added to the above prescription is inadvisable.

If it is desired to obtain the depressant effect of tartar emetic, which is probably rarely good judgment, it should be given in such a way that its effect could be carefully watched in order that it may be stopped as soon as disagreeable symptoms appear.

5. The child would also get about 4 minims of the irritant and disagreeable syrup of senega, in addition to that in the compound syrup of squills. The expectorant action of senega is practically *nil*. Like squills, it is irritant to the stomach, and it and syrup of squills should both be dropped from the Pharmacopeia as nauseating and useless expectorants, and it should be considered a cause of complaint to have them introduced into any trusting child's stomach.

6. The addition of about 15 minims of syrup of tolu to try to smooth the rest of the disagreeable mixture is laudable, but certainly of no advantage, and causes the taste that is disagreeable to remain a little longer on the child's tongue. Tolu has no expectorant action. It will be found generally more satisfactory, when a disagreeable drug must be given to a child, to give it either

in plain or aromatic water, and then let the mother fix the dose for administration in either sweetened water, or lemonade, or orangeade, as she and the child find best. Or, the taste from time to time can be varied. A bad taste perpetuated by a sweet soon palls, and the child, though at first taking the medicine readily, often soon objects to it.

Finally, there is no excuse for such a complex "shotgun" mixture.

It is not the object of these articles on prescription nonsense to condemn what an individual physician finds of value or prefers to use, but it is to deplore such advice being copied and spread broadcast as advice of value, or as representing what an editor thought was advice of sufficient value to be exploited.

SCARLET FEVER

The following recommendation was copied some months ago as good advice by one of the prominent medical journals. It was taken from an article by Dr. F. G. Crookshank, on "The Diagnosis and Home Treatment of Scarlet Fever," in the December, 1910, number of the *Practitioner*. The advice was to use salicylates and salol to prevent rheumatism from becoming a complication in scarlet fever.

Joint rheumatism is a rare complication of scarlet fever, while nephritis is a frequent one. Therefore, drugs that are used to prevent an improbability should not be so irritant as to aid in producing a frequent probability.

He advises the routine use of the following mixture in scarlet fever:

"℞.

Potassium salicylate	gr. x
Tincture of nux vomica	♏ iii
Tincture of capsicum	♏ iii
Syrup of orange peel	ʒss
Water	ad ʒi

M.

"Such a draught may be given every four hours to a child 12 years of age. If the temperature rises, the dose of salicylate should be increased; as the temperature falls, it should be lessened, but not abolished until the fever is quite gone."

CRITICISM

1. There seems to be no excuse for using potassium salicylate in place of sodium salicylate. Potassium salicylate is likely to deteriorate, and must be kept in tightly stoppered bottles.

2. Ten grains of a salicylate given every four hours to a child 12 years of age is very large dosage. Salicylism must of necessity be caused. If the child has much fever, he advises that the dose be increased. Such treatment is absolutely unjustifiable. The cerebral excitement, and possibly delirium, to say nothing of the possible kidney irritation from such doses of salicylate in a child who is ill with scarlet fever, renders the use of such a prescription absolutely inexcusable.

3. Three minims of tincture of capsicum is of no therapeutic value and might be a stomachic detriment.

4. To give every four hours one ounce of the above sweet, bitter, hot, sour mixture would no doubt be strenuously objected to or refused by a child. It would also seem an unusually good stomach that would tolerate it, even if the child did.

The same article and the abstract referred to advises the use of "salol suspended in the liquid food in some instances." The statement is further made that "salol may be given freely, 5 grains every three or four hours for several days at a time, even to children, though a watch of course should be kept for saloluria. In septic cases it sometimes does great good; but it should be given until the patient reeks of it."

It should be remembered that salol (phenyl salicylas) is a compound of phenol and salicylic acid, into which component parts it breaks up in the intestine. Its disintegration and absorption is normally rapid, the reaction for salicylic acid appearing in the urine generally within from half an hour to an hour. While salicylic acid is more rapidly eliminated from the system, phenol is slowly eliminated, and the frequent administration of even small doses of salol (and 5 grains of salol every three or four hours for a child is a large dose) will cause phenol urine, i. e., a urine that turns dark or black when it has stood for a while exposed to the air, and is indicative of phenol poisoning. If the salol is not immediately stopped, all of the symptoms of phenol poisoning, including acute irritation of the kidneys, develop.

To administer salol at all, and certainly in any such dosage as above recommended, to a child with scarlet fever, who is likely to have nephritis as a sequence, is absolutely without justification.

The "septic cases" above referred to probably means septic joints occurring during the course of scarlet fever. This is a very rare complication, but offers no excuse for the administration of salol in scarlet fever.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLE HAS BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. ITS ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS ARE ASKED FOR TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK "NEW AND NONOFFICIAL REMEDIES."

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT, SO FAR AS KNOWN, IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

GYNOVAL.—Gynoval is isoborneol isovalerate $CH_2CH(CH_3)_2.CH_2COO.C_{10}H_{17}$, the isovaleric acid ester of isoborneol.

Gynoval is said to be prepared by the esterification of isoborneol with isovaleric acid.

It is a colorless neutral fluid of a peculiar aromatic odor and mild oleaginous taste. It is difficultly soluble in water, but easily dissolves in alcohol, ether, acetone, chloroform, benzol and petroleum-benzin. It is stated to have a boiling point of 132° to 138° C., under 12 mm. pressure, and a specific gravity of 0.952-0.957 at 15° C.

Gynoval dissolves in concentrated sulphuric acid with formation of a red-brown color and liberation of an odor of sulphurous and valeric acids. On heating gynoval with an alcoholic solution of potassium hydroxide for several hours on a water bath it is completely split up into its components. On diluting this saponification liquid iso-borneol separates in solid form, while potassium valerate remains in solution.

Actions and Uses.—The action of gynoval is said to be that of a mild nervine and antispasmodic, resembling that of valerian, with the advantages of a much more agreeable odor and of being better tolerated, especially not giving rise to unpleasant eructations. It is said to have been given in single doses of 4.0 Gm. to dogs without any disturbances. Like other valerian preparations, it is said to be indicated in nervous headaches, nervous insomnia, nervous disorders of the climacteric, hysteria, cardiac and gastric neuroses and neurasthenia.

Dosage.—0.25 Gm. to 0.50 Gm. (4 to 8 grains) two to four times daily, best given after meals. These doses may be increased according to the indications.

Manufactured by Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany (Farbenfabriken of Elberfeld Co., New York). No U. S. patents. U. S. trademark No. 44,069.

Gynoval Pearls.—Each pearl contains gynoval 0.25 Gm. (4 grains).

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[For other information see second page following reading matter]

SATURDAY, FEBRUARY 10, 1912

A NEW THEORY OF THE COAGULATION OF THE BLOOD

The coagulation phenomena of the blood concern the internist and the surgeon in a variety of practical ways. The stoppage of hemorrhage, the production of intravascular clots leading to thrombosis, the non-coagulability of the blood in certain diseases, with its attendant consequences, are a few familiar instances of the problems which daily arise for consideration in this connection. Despite the enormous amount of attention which has been devoted to the theoretic aspects of the question, physiologists have been unable to agree on any approximately adequate solution. One by one the investigators have pointed out additional factors which have served only to increase the complexity of the situation. Any one who attempts to study the literature of the subject of the coagulation of the blood in an up-to-date textbook will soon find himself entangled in the meshes of apparently irreconcilable observations, antagonistic facts, conflicting views, and new nomenclatures serving to conceal the extreme obscurity of the processes.

It may be accepted as probable—to use a conservative expression—that the clotting of shed blood is due to a reaction between a protein, fibrinogen, and a substance, thrombin, whereby insoluble fibrin is formed. It is furthermore demonstrated that in the absence of calcium salts the blood will remain fluid indefinitely. Lastly, it has been noted that tissue extracts (and extracts of the blood-corpuscles as well) furnish something which greatly facilitates clotting. The secret of coagulation is concealed in the processes that lead to the production of thrombin, which is apparently present in the blood in some antecedent form, prothrombin.

One of the most reasonable of recent theories (proposed by Morawitz, and Fuld and Spiro) assumes that the tissues over which blood may pass or the disintegrating platelets in shed blood furnish an activator or kinase which, in the presence of calcium salts, converts prothrombin into thrombin, thus bringing about the coagulation. Recently a counter theory has been proposed by Professor Howell[1] of Johns Hopkins University, which offers an ingenious explanation of the familiar phenomena. Its fundamental feature is the assumed existence in normal blood of a substance antagonistic to coagulation. Clotting of blood can thus occur when the antagonist, antithrombin, is counteracted. The situation here presented can be comprehended readily:

"In the circulating blood we find as constant constituents, fibrinogen, prothrombin, calcium salts and antithrombin. The last-named substance holds the prothrombin in combination and thus prevents its conversion or activation to thrombin. When the blood is shed, the disintegration of the corpuscles (platelets) furnishes material (thromboplastin) which combines with the antithrombin and liberates the prothrombin; the latter is then activated by the calcium and acts on the fibrinogen. According to this view the actual process of coagulation involves only three factors, fibrinogen, prothrombin and calcium. These three factors exist normally in the circulating blood, but are prevented from reacting by the presence of antithrombin."

It will be noted, as Howell points out, that according to this hypothesis the circulating blood contains normally the necessary factors of coagulation and its fluidity is maintained by the presence of the antithrombin; and the blood is ready to clot as soon as the antithrombin is removed. Diminished coagulability is here attributable to excess of antithrombin. Davis[2] has shown that when an excess of thrombin is introduced into the circulation, there is an almost immediate output of antithrombin. May we not assume that a "part of this automatic regulation may be due to the fact that the prothrombin or thrombin itself constitutes a hormone which excites the secretion of antithrombin"? It appears as if we were here dealing with another of the remarkable chemical mechanisms by which physiologic equilibrium is ordinarily maintained.

1. Howell: The Rôle of Antithrombin and Thromboplastin in the Coagulation of Blood, Am. Jour. Physiol., 1911, xxix, 187.

2. Davis: The Intravenous Injection of Thrombin, Am. Jour. Physiol., 1911, xxix, 160.

OZONE MYTHS

Faith in the subtle and far-reaching effects and the health-giving virtues which have at one time or another been attributed to ozone has somehow been instilled into the popular mind. Seaside and mountain resorts alike have benefited by the reputation of "ozone in the air" in the neighborhoods involved. The excusable longing of an ever-ailing population for a stimulating atmosphere and for an ideal antiseptic has led many to look hopefully toward that substance which appears to represent the acme of the valuable properties of oxygen. The honest manufacturer and the medicine faker have both been alert to avail themselves of the opportunity for public service, so that "ozonizers" and "ozonized" products are displayed in abundance.

The ozone question presents its facts as well as its fiction. Ozone undoubtedly has antiseptic power; but

for such effects a concentration of at least thirteen parts per million in the atmosphere appears to be necessary; and even here the action is not penetrating. Such quantities are by no means innocuous to man. It was at one time believed that the disappearance of epidemics in certain localities was associated with the germicidal ozone content of the atmosphere. This appears most unreasonable to-day, because of the extremely small quantities of ozone which are actually found in the air at any time.

It had been hoped that inhalation of ozone-laden air might facilitate oxidation in the tissues, and especially advantageous results were looked for in such conditions as pulmonary tuberculosis. As a matter of fact, even small proportions of ozone were soon found to be irritant to the respiratory passages — an effect at once ascribed to contaminating oxids of nitrogen which have always offered an obstacle to the satisfactory study of the subject. Lately it has become possible to prepare undoubtedly pure ozone and thus the way has been opened to a renewed investigation of its physiologic properties by Prof. Leonard Hill and Dr. Martin Flack of London.[1] They have noted that "a concentration as little as one per million is irritating to the respiratory tract. Exposure for two hours to a concentration of fifteen to twenty per million is not without risk to life. The irritative effect and the discomfort produced thereby — cough, headache — give ample warning and there is no risk from inhaling ozone so long as an outlet for the instinctive escape from its influence is open."

The London investigators have pointed out that from a hygienic point of view ozone may be useful as a deodorizer. It does not destroy the odoriferous substance, such as the smell of tobacco, but masks it. To the nervous system, however, it makes little difference whether a bad odor is masked or destroyed, so long as its disagreeable quality is no longer recognized. In any event it is important that systems of ventilation to which ozone may be applied should be dealt with by those experienced so that harmful concentrations will not be supplied.

The concentration of ozone necessary to kill bacilli would also kill tissues in which they occur. Ozonized ointments have not been observed to exhibit any superior efficiency in cleaning up infected parts such as are found in superficial ulcers. To give the widely heralded ozone the advantage of the most favorable reports, we can at best merely conclude with Hill and Flack that "the beneficial effect of ozone obtained by the ozone ventilating systems is to be explained by its effect on the nervous system. There is no harm in breathing weak concentrations of ozone, such as can be scarcely perceived by the keen sense of smell. Ozone in somewhat higher concentrations (one per million) may have some value as a therapeutic agent if inhaled for brief periods; by irritating the respiratory tract it may act as a blister or fomentation and bring more blood and tissue lymph to the part. The blood and tissue lymph contain the immunizing and curative properties." But this is, after all, a rather far-fetched way of applying a "blister" to the respiratory tract. In respect to real therapeutic usefulness the burden of proof may well be shifted on the ozone, so long as there is no paucity of other curative agencies.

1. Hill and Flack: The Physiologic Influence of Ozone, Proc. Roy. Soc. London (B), 1911, lxxxiv, 404.

LEAD-POISONING AND ITS PATHOLOGY

We recently[1] gave a brief review with comments on a bulletin of the Department of Commerce and Labor on industrial lead-poisoning, which gave statistical information concerning this subject in the United States and Great Britain. In that report Oliver discusses the more recent researches on the entrance, absorption and elimination of the lead salts, on the pathology of lead paralysis and on diagnosis.

That a lead trade is dangerous in proportion to its dustiness has long been noted by sanitarians; and Oliver refers to the experiments of Goadby which tend to show not only that the inspired dust is swallowed and absorbed from the intestinal tract, but that there is also probably absorption from the bronchial mucosa and perhaps penetration into the blood-stream by way of the lung capillaries. Cats exposed to red and white lead dust developed acute poisoning even when prevented from licking their fur, and examination of the lungs showed deposits of lead along the capillaries. Oliver and Bedson report experiments to show that human saliva has a slight solvent action on lead carbonate and that the presence of albuminous food in the stomach inhibits to a decided extent the solvent action of the gastric juice.

The character of certain occupations has an influence on the type of lead-poisoning which develops. Thus Teleky finds that, while compositors in Vienna seldom suffer from colic or from the severer types of lead-poisoning, they are subject to an unusual extent to diseases of the lungs and kidneys. The relation between tuberculosis and chronic plumbism is shown in Hahn's diagrams based on the records of typographical trades in Vienna and Berlin, the curves of the two diseases showing a remarkable parallelism. Colic is said by Legge to be most frequent among workers in white lead, red lead, enameling, storage-batteries, coach-painting (which means sandpapering) while the severer form with paralysis is found in brass-workers, plumbers, printers, file-cutters and tinsmiths. The former are very dusty trades; poisoning occurs rapidly and encephalopathy is more frequent than paralysis.

Basophilic granulation of the red cells Oliver has "not found to be either so frequent or to be the early and important sign of plumbism which Grawitz and other writers have claimed for it." It occurs, but as he has found basophilia present in only a small percentage of

1. THE JOURNAL A. M. A., Jan. 27, 1912, p. 279.

cases, he does not attach the diagnostic value to it which many continental physicians do. In doubtful cases he advises examining the urine for lead, and he states that Bedson found traces of lead in the urine of all of twenty-three apparently healthy lead-workers. This condition Oliver calls latent plumbism.

In going over the histories of fatal plumbism in the report of Andrews, we find cerebral complications frequent. One instance each is noted of acute mania, hallucinations and convulsions, prolonged insomnia following somnolence, partial coma for four days, mental derangement, cerebral disturbance. Cerebral hemorrhage caused the death of four, uremic convulsions four. Death during an acute attack of colic is considered rather unusual, but it occurred in four of these cases.

THE EFFECT OF STRYCHNIN ON THE BLOOD-PRESSURE

Much confusion still exists in the medical profession, not only among the rank and file of practitioners, but also among those who speak as authorities, regarding the effect of strychnin on the blood-pressure. Opinion is divided on the question whether or not its administration is followed by a rise in the arterial pressure. Obviously this should not be a matter of opinion but of clinical demonstration.

The results of animal experiment have been somewhat contradictory. Toxic (convulsive) doses undoubtedly raise the blood-pressure enormously; but with smaller doses the effect is so small that it has often escaped observation. It is also conceivable — indeed probable — that the response would be modified by pathologic conditions. Evidently we are more concerned with the therapeutic than with the physiologic effects of the drug. Reports which show the effect of strychnin in clinical use have the most weight in shaping our judgment, and here unfortunately there is conflicting evidence.

R. C. Cabot[1] in a report of fifty cases, all febrile, gives absolutely negative results so far as a rise in blood-pressure is concerned. Pressure readings were taken for days and in some cases weeks preceding and following the administration of strychnin. A total daily amount of from 1/8 to 1/6 grain was given, in some cases by mouth, in others hypodermically. No charts showing existing pressure and intervals at which pressure was taken, are given in the communication.

On the other hand Cook and Briggs[2] in an article entitled "Clinical Observations on Blood-Pressure," give charts taken from extended and systematic series of blood-pressure observations, including a large number of conditions such as shock, child-birth, febrile conditions, surgical operations, etc., and show blood-pressure readings taken at intervals of five minutes during the observations preceding and following the administration of various drugs and other procedures. In the administration of strychnin the doses varied from 1/60 to 1/10 grain, and were given hypodermically.

Cook and Briggs conclude their observations on strychnin as follows: "Strychnin gives a rise in blood-pressure somewhat delayed in onset and lasting from one to four hours. Strychnin is a most satisfactory cardiovascular stimulant for long-continued routine administration, maintaining a satisfactory blood-pressure level free from intervals of depression." They noted that strychnin failed to raise the blood-pressure in the following: (1) moribund patients and hopeless cases; (2) normal persons with heart and circulation apparently in healthy tone; (3) cases in which the pressure is already maintained at a "stimulation level" by previous stimulations. The conflict between this and previous evidence might possibly be explained on the assumption that the observations with negative results were made on patients in one of the three conditions in which an increase of blood-pressure is not to be expected from strychnin.

It would not be safe, however, to accept this assumption without further proof; evidently, the clinical effects of strychnin are in need of further investigation. Exact clinical observations by accurate methods, under a variety of conditions, are needed. This will require the collaboration of a number of clinical workers. The Council on Pharmacy and Chemistry has a committee carrying on an investigation along this line, and the committee, we feel sure, would be glad to hear from any who are willing to participate in the work.

DEMONSTRATION OF THE IDENTITY OF SO-CALLED BRILL'S DISEASE WITH TYPHUS FEVER

In a recent editorial[1] reference was made to the symptom-complex described by Brill and regarded by him as an infectious disease of unknown origin. It was he who originally suggested the clinical resemblance, in many respects, between this disease and typhus fever; and Friedman,[2] on clinical grounds, recently expressed the opinion that the above-mentioned syndrome was identical with mild and moderately severe cases of typhus fever; but no experimental data were presented to demonstrate the identity of the two diseases.

Anderson and Goldberger[3] have now, however, presented the results of studies of this disease, in the Hygienic Laboratory and in Mexico City, from which they conclude that the disease described by Brill is identical with the typhus fever (tabardillo) of Mexico, and that the typhus fever of Europe and the tabardillo of Mexico are identical. These investigators, as a result of studies made in Mexico City in 1909 and 1910, report the successful experimental production of Mexican typhus fever in monkeys, and express the opinion

1. Cabot, R. C.: Med. Communicat. Mass. Med. Soc., 1904, xix, 945.
2. Cook and Briggs: Johns Hopkins Hospital Reports, xi, 512.

1. THE JOURNAL A. M. A., Nov. 18, 1911, p. 1700.
2. Arch. Int. Med., Oct. 15, 1911, p. 427.
3. Public Health Rep., Feb. 2, 1912, p. 149.

that the disease is transmitted in nature by means of the body-louse. These investigations were interrupted by the dangerous illness of Goldberger from typhus fever; but Ricketts and Wilder, who were also engaged in similar investigations in Mexico City at the time, although the former contracted later a fatal form of the disease, were able, before Ricketts' death, to inoculate monkeys with typhus fever, and succeeded in transmitting the infection from one monkey to another by means of the body-louse.

Being struck by the close clinical resemblance between Mexican typhus fever and so-called Brill's disease, Anderson and Goldberger undertook investigations to determine, if possible, the relationship between the two diseases. The blood of three patients who were ill with Brill's disease in New York was obtained and inoculated into rhesus monkeys, which developed characteristic symptoms of infection, and this infection has been carried through eleven monkey generations by inoculations of blood.

It is reported that one attack of the infection has served, in every instance thus far tested, to confer immunity to infection by subsequent inoculation with virulent blood. Having established the susceptibility of rhesus monkeys to infection by the inoculation with blood from a patient suffering from Brill's disease, and the immunity conferred by an attack thus brought on, investigations were resumed in Mexico City to determine, by immunity and other experiments, the identity of Mexican typhus fever and Brill's disease. As a result of these experiments, it was shown that an attack of Brill's disease in the monkey confers an immunity to subsequent infection with Mexican typhus. The conclusion appears justified, therefore, that the two diseases are identical, and since the New York strain is held to be of European origin, it is also concluded that the typhus fever of Europe and the tabardillo of Mexico are identical.

These results have a direct bearing on the public health and are of far-reaching importance. Typhus fever has undoubtedly been present in certain districts of some of our large eastern cities for a number of years, and while the disease is of a very mild character, it is important that its manifestations should be recognized by physicians generally. By this means, and by further studies, will additional light be thrown on the methods of transmission and the measures necessary to its control.

Current Comment

TYPHOID FEVER AGAIN IN MILWAUKEE

On several previous occasions we have referred to the excessive amount of typhoid fever in Milwaukee, a condition plainly due to water pollution. It is much to be regretted that the health officials of that city have chosen to shut their eyes to the danger from this source. The day has gone by when "southern vegetables" or any other hypothetical vehicle of infection can reasonably be held responsible for such a condition as exists in Milwaukee. The recent action of the Milwaukee County Medical Society in issuing a warning to boil the water is highly commendable. It is indeed difficult for any one familiar with the situation to understand the position taken by the health officials. It is generally known (1) that a large volume of sewage enters Lake Michigan within a few miles of the water intake; (2) that bacterial examinations of the public water-supply have shown the presence of colon bacilli, and (3) that typhoid fever has during some years prevailed excessively in Milwaukee. In 1910 the city of Milwaukee had the highest typhoid fever rate (45.7) of any of seventeen large cities reported on by the United States Census Bureau. How can any intelligent person be ignorant of the conclusions to be drawn from such facts? The issue is too serious to be played with for political or other reasons. Why do the citizens of Milwaukee not insist on the use of hypochlorite?

WHEN THE HEN EMBALMS HER EGGS

Apropos of a recent discovery commented on in these columns,[1] to the effect that hexamethylenamin and some other antiseptics, given in the food of the hen, affect the egg, we wonder what Dr. Wiley will do with a hen that embalms her own eggs. By the aid of science, it seems, she can now do it, and, from what we know of this perverse fowl, we fear that she will do it. Such a discovery as this can scarcely elude the grasp of the astute poultry producers and egg embalmers. Will it be applied practically, and, if so, will its effects be pernicious or beneficent? Shall we be poisoned by both the ham and the eggs, or will it now become possible for every farmer to stock his own storage warehouse and hold down the winter prices on hen fruit?

HEALTH RESORTS AND INFECTION

Among the laity the idea is occasionally found current that cities or communities frequented by tuberculous persons present conditions favorable for the infection of the well. This assumption is mentioned in the report of the Committee on Laws and Methods of Control of Tuberculosis in a Health Resort State, in THE JOURNAL, December 9. While it was difficult to secure conclusive evidence to prove the error of the assumption referred to, yet a study of the question by the members of this committee—physicians from health-resort states—convinced them that casual contact and house infection were of relatively slight importance, and that if the presence of a large number of "open cases" were a factor of great importance in spreading tuberculosis, there should be some correlation between the death-rate of imported and acquired cases in the various communities. None of the states except Arizona classifies separately the deaths from imported cases and those from locally acquired tuberculosis, but it is found that in Arizona the coeffi-

1. Unique Food Preservation, THE JOURNAL A. M. A., Feb. 3, 1912, p. 347.

cient of correlation amounts to less than 0.006. It is found that in Denver, which also makes this distinction in classifying these deaths, the death-rate from locally acquired tuberculosis, while it fluctuates somewhat, is low and is certainly not increasing. California also classifies these deaths according to length of residence and while the line cannot be distinctly drawn between imported and locally acquired cases, yet the conclusion is that the death-rate from tuberculosis is no higher in southern California, which receives most of the imported cases, than it is in the central and northern portions of the state. The abundance of sunshine, which quickly destroys the bacillus, and the possibility of outdoor life in most of these communities together with the supervision exercised by physicians over this class of patients and the instruction given them as to the spread of infection and adoption of correct hygienic measures, make these communities as safe for the general public as the communities less favored by climate. Since tuberculosis is notoriously a disease dependent on poverty, malnutrition, dust, bad air and bad housing, these conditions in the closely populated industrial centers with less supervision over the cases really afford much greater opportunity for the spread of this infection than the presence of many open, but supervised cases, as in the health resort communities.

ANNUAL CONFERENCE ON MEDICAL EDUCATION AND PUBLIC HEALTH

The Eighth Annual Conference on Medical Education and on Legislation will be held at the Congress Hotel, Chicago, February 26 and 27. These annual conferences have come to be regarded as important features in the work of the Association. To the Conference on Medical Education come delegates from the state societies, representatives appointed by the governors of the states, members of faculties of medical schools, colleges and universities. The Conference on Medical Legislation is attended by the members of the National Legislative Council and members of state examining boards. The two conferences, which met separately at first, have for three years past met in joint session, to the distinct advantage of both. This year, for the first time, public health has been added to the topics to be discussed and a call has been issued for a meeting of representatives of state boards of health to consider the advisability of forming an advisory Council on Public Health, under the auspices of the Council on Health and Public Instruction. The conference will cover two days and will, it is hoped, be largely attended. An attractive program has been arranged. The Council on Medical Education invited Mr. Frederic G. Hallett, Secretary of the Conjoint Board of the Royal College of Physicians and Surgeons, of London, to attend this conference. He will be present and will explain the methods of conducting examinations in Great Britain, and other matters relating to the methods of licensing in that country. These conferences offer an excellent opportunity for a free exchange of opinions and a comparison of local and state problems. Only by the broadest discussion and the most careful deliberation can the difficult problems connected with medical education, legislation and public health be solved. A full attendance at, and a general participation in, these conferences will be of great value in harmonizing individual views and in making possible concerted and effective action.

AGGLUTINATION REACTION BEFORE AND AFTER ANTITYPHOID VACCINATION

In a recent experiment at the University of Kansas, the agglutinative power of the serum was tested before and after the antityphoid vaccine treatment.[1] The serums of about twenty-five students were tested (1) before taking the treatment, (2) a few weeks after treatment, and (3) after a period of a year had elapsed. In the first tests, the normal serums caused agglutination of typhoid bacilli at dilutions ranging from 4 to 16, examined microscopically. Serums from the same individuals a few weeks after treatment caused positive agglutination at dilutions ranging from 64 to 192. After more than a year's time the agglutinative power had decreased somewhat but was still very considerable, the dilutions at which agglutination occurred ranging from 32 to 128. The experiment is of interest as indicating relatively the persistence of the results of antityphoid vaccination. While it is known that the increased resistance and the agglutinative power of the serum do not run parallel, it is also known that patients who have had typhoid fever retain their resistance to the disease longer than their serums retain their agglutinative power. This fact gives basis for the assumption that considerable resistance to the disease is retained after a longer period than one year following the vaccine treatment. Another point is suggested by the experiment, namely, that physicians in using the agglutination test for diagnostic purposes should not fail to assure themselves that the patient has not received antityphoid vaccine treatment within two or three years previously. Otherwise an error in diagnosis might result, as these patients' serums have increased agglutinative properties for a considerable time following the inoculations with typhoid bacilli.

SACCHARIN AGAIN

Time and again we have called attention to the fact that the attitude of the Department of Agriculture on any subject connected with public health is: When in doubt, let the public take the risk. For years those who are competent to speak on the subject have declared that the use of saccharin in foodstuffs is deleterious to health, but the Department of Agriculture permitted its use in unlimited quantities with the understanding that the referee board was to investigate the question and report on it. In the course of time the report was sent in—and it was adverse to the use of saccharin! On the strength of the board's findings, the department declared that after July 1, 1911, foods containing saccharin would be regarded as adulterated within the meaning of the Food and Drugs Act Naturally enough, those man-

1. Moon, Virgil H.: Tr. Chicago Path. Soc., Feb. 1, 1912, viii, No. 7.

ufacturers that have grown rich in substituting a cheap drug—saccharin—for an expensive but wholesome foodstuff—sugar—at once brought all the pressure possible to bear, to have the decision of the department either rescinded or modified. As is usually the case, when the interests of the manufacturers clash with the interests of the public health, public health got the worst of it and the users of saccharin were given an additional six months during which it would still be legal to add this chemical to foodstuffs. As January 1, 1912, the end of the period of probation, drew near, a little more pressure was applied to those officials who are supposed to stand between the public and the food sophisticators. Again the officials yielded and another extension of time was given to February 1, 1912. The newspapers for January 30, 1912, contain the statement that still another extension has been given, to March 1, 1912. How much longer this will go on can be best judged by those who are familiar with the methods of official Washington. The spectacle is not a pretty one and does not tend to increase public confidence in the Department of Agriculture.

Medical News

CONNECTICUT

Gift to Medical School.—Yale Medical School has received $15,000 from an anonymous donor, to be added to the fund for the support of the university clinic.

Personal.—Dr David M. Trecartin has been elected president of the board of health of Bridgeport.——Dr. Oliver T. Osborne, New Haven, has announced that he now restricts his professional work to consultations, office and hospital practice.——Dr. Caroline R. Conkey has been appointed assistant resident consulting physician and surgeon to the Waterbury Hospital.

New Officers.—New Haven Medical Society: president, Dr. Norton R. Hotchkiss, secretary, Dr. Robert G. Tracy.——Torrington Medical Society: president, Dr. Thomas L. Thompson (reelected), secretary, Dr. Daniel P. Platt (reelected).——Bristol Medical Association: president, Dr. Charles R. Upson, secretary-treasurer, Dr. Benedict M. Whipple.——Greenwich Medical Society: president, Dr. Virgil C. Piatti, secretary, Dr. Stacey W. Boyle.——Hartford Medical Society: president, Dr. Oliver C. Smith, secretary, Dr. John Carter Rowley.——Bridgeport Medical Society: president, Dr. Daniel C. DeWolfe, secretary, Dr. George H. Warner.

GEORGIA

College Merger.—Word has been received from Atlanta that the Hospital Medical College has been merged with the Georgia College of Eclectic Medicine and Surgery.

State Board Upholds Secretary.—At a meeting of the State Board of Health, Atlanta, on January 6, the letter sent by Dr. Willis F. Westmoreland to the governor denouncing Dr. Henry F. Harris, secretary of the board, was considered, and the board decided unanimously that the charges made were groundless, and exonerated Dr. Harris.

New Officers.—Colquitt County Medical Association: president, Dr. J. H. Green, Hartsfield, secretary-treasurer, Dr. John E. Lanier, Moultrie.——Georgia Medical Society: president, Dr. Victor H. Bassett, secretary-treasurer, Dr. A. J. Waring, both of Savannah.——Ware County Medical Society: president, Dr. James C. Rippard, secretary-treasurer, Dr. Thomas J. Carswell, both of Waycross.——Clarke County Medical Society: president, Dr. Allen C. Holliday, Athens.——Fulton County Medical Society: president, Dr. L. Benjamin Clarke, and secretary, Dr. Richard R. Daly, both of Atlanta.——Bibb County Medical Society: president, Dr. Frank M. Cunningham, secretary-treasurer, Dr. Will D. Hereford, both of Macon.

ILLINOIS

New Officers.—Effingham County Medical Society: president, Dr. Emery W. Brooks, Beecher City, and secretary, Dr. Clarence C. Holman, Effingham.

County Society Bulletin.—On the first of January, the *Bulletin of the Champaign Medical Society*, a four-page monthly, made its appearance. The *Bulletin* contains the list of officers, portrait of a member, report of the previous meeting, the program of the coming meeting, and news items, and is a creditable production.

Personal.—Dr. Ralph P. Grimm, Glasford, who has been ill at the home of his father at Canton, is reported to be convalescent.——Dr. John A. Hoffman, Pesotum, is reported to be seriously ill.——Dr. William O'R. Bradley, Galesburg, suffered amputation of the thumb, January 24, in a Chicago hospital.——Dr. Chauncy Sherrick, Monmouth, who was operated on for the removal of gall-stones at Monmouth Hospital, January 14, is convalescent.

Recent Deaths of Scientists.—Rev. Frederick Howard Wines, D.D., first secretary of the board of commissioners of Public Charities of Illinois, and for thirty-five years in that position, sometime president and secretary of the National Prison Association and president of the National Conference of Charities and Correction; an expert on the collection and tabulation of statistics relative to the defective, dependent and delinquent classes, crime, pauperism and benevolence, the founder of the Kankakee State Hospital, the first institution to be organized in the United States on the cottage or village system; died at his home in Springfield, January 31, aged 73.——Waldemar Koch, associate professor of pharmacology in the University of Chicago, formerly assistant professor in the Harvard Medical School, one of the leading physiologic chemists of the United States and an authority on chemistry of the brain, a nephew of Dr. Robert Koch, died in Wesley Hospital, February 1, from pneumonia, aged 36.——Charles Gilbert Wheeler, for twenty-one years professor of chemistry in the University of Chicago, a geologist, mineralogist and chemist of note, consul to Nuremberg, Germany, under President Lincoln, died at his brother's home in Chicago, January 30.

Chicago

The Owens Semi-Centenary.—The trustees and medical board of St. Luke's Hospital give a dinner February 10 at the Chicago Club, in honor of Dr. John E. Owens, who on that day completes his fiftieth year in the practice of medicine.

Tuberculosis Institute Meeting.—At the annual meeting of the Chicago Tuberculosis Institute, January 29, directors were elected, including Drs. Robert H. Babcock and Frank S. Johnson, and the plans of the institution for the year were announced, namely, to gain the cooperation of employers of labor, so that employees of all kinds can be examined for tuberculosis and to have a traveling exhibit bearing on the nature, prevention and cure of tuberculosis, shown in the central locations of the city.

To Improve the Conditions of Child Life.—Open house was held by the Elizabeth McCormick Memorial Fund, January 29, in its new quarters on Plymouth Court. The foundation was established May 20, 1908, and aims to promote the cooperation of agencies dealing with the welfare of children. It has already established the Elizabeth McCormick Open-Air School, and ten stations are to be established for sick babies, educational work is to be done among mothers and information regarding child welfare is to be disseminated.——The Infant Welfare Society of Chicago, at its annual meeting January 25, reported that during 1911, 2,129 babies were cared for and that the nurses in its employ have made 16,706 calls at homes to assist mothers in caring for their babies. Among the officers for 1912 are Drs. Frank S. Churchill, secretary, Dr. Isaac A. Abt, William A. Evans, Caroline Hedger and George B. Young, directors, and Dr. Henry F. Helmholz, medical director.

INDIANA

Office Moving Day.—New Year's Day was a notable moving day for physicians of Indianapolis; thirty-nine practitioners moved to the new Hume-Mansur Building, designed for the special use of professional men.

University Takes Charge of Dispensary.—The Indianapolis Board of Health has entered into a contract with the University School of Medicine to pay the University $12,000 a year, the university agreeing to furnish and superintend the City Dispensary for that period.

Building for Physicians.—In the eight-story building to be erected by the Indiana National Life Insurance Company in Indianapolis, accommodations will be furnished sufficient for one-fifth of the medical practitioners of the city. Six of the

eight floors of the building will be devoted to offices for physicians.

State Fund for Hydrophobia.—The State Board of Health has issued a certificate blank, which, when properly filled out by the county health officer and the township trustee, will admit a needy person who has been bitten by a mad dog, or a dog supposed to be mad, to free Pasteur treatment for hydrophobia.

State Board Elections.—At the annual meeting of the State Board of Medical Registration and Examination held in Indianapolis, Dr. James M. Dinnen, Fort Wayne, was elected president; Dr. William A. Spurgeon, Muncie, vice-president; Dr. William T. Gott, Crawfordsville, secretary, and Dr. Moses S. Caufield, Frankfort, treasurer.

State Water Supply.—The Indiana Sanitary and Water-Supply Association will hold its annual meeting in Indianapolis, February 15 and 16. The principal addresses will be delivered by F. H. Newell, chief of the Reclamation Service of the Department of the Interior, and Dr. Milton J. Rosenau of the Department of Hygiene of Harvard University.

Long Will Build State Hospital and Dispensary.—The trustees of the Indiana University have agreed to the proposal that a tract of land on West Michigan Street be offered the city as a location for the State Hospital, to be erected by Dr. Robert W. Long, Indianapolis. This will obviate the necessity of using Military Park for this purpose. On this tract of land the Indiana University School of Medicine expects to erect its own buildings. Dr. Long has also stated that he will build and equip a dispensary for the city.

Old Practitioners.—Dr. William H. Wishard, Indianapolis, celebrated his ninety-sixth birthday anniversary, January 18, and during the day he was visited at his home by a committee of the Indianapolis Medical Society, who extended the best wishes of the society to the venerable and honored practitioner.——Dr. John Ott, Indianapolis, celebrated his eighty-seventh birthday anniversary, January 14.——Dr. Abner H. Shaffer, Huntington, on the celebration of his eighty-third birthday anniversary, January 15, was called on and congratulated by a number of members of the local profession.

Personal.—Dr. Charles R. Sowder, Indianapolis, fractured his arm while cranking his automobile.——Dr. William A. Shobe, Ligonier, was operated on in a hospital in Fort Wayne, January 24, for appendicitis and is reported to be doing well. ——Dr. Eli L. Schlotterback, Ligonier, is ill with pneumonia at the home of his daughter, near that place.——Dr. Theodore B. Templin, Gary, is said to have given up more than a quart of blood by transfusion in an unsuccessful endeavor to save the life of his wife.——Dr. John W. Crismond, Anderson, is ill with influenza at St. John's Hospital.——Dr. Edward F. Wagner, Fort Wayne, who was operated on recently at St. Mary's Hospital, Rochester, Minn., has returned home convalescent. ——Dr. James A. Rawley, Brazil, had a narrow escape from drowning, January 18.——Dr. Thomas M. Staley, Bicknell, has resigned from the board of trustees of the Good Samaritan Hospital, Vincennes.——The home of Dr. Columbus L. Myers, Covington, was destroyed by fire, January 6.——Dr. Jesse F. Davidson, Crawfordsville, sustained severe burns about the face in an explosion of gas from the furnace of his residence, January 9.

New Officers.—Johnson County Medical Society, at Whiteland: president, Dr. Daniel W. Sheek, Greenwood, and secretary-treasurer, Dr. Rufus W. Terbune, Whiteland.——Tenth District Medical Association, at Gary, January 11: president, Dr. Simon J. Young, Valparaiso, and secretary-treasurer, Dr. Otis B. Nesbit, Valparaiso.——Physicians' Club of Mishawaka, January 8: president, Dr. Chris A. Dresch, and secretary-treasurer, Dr. James G. Bostwick, both of Mishawaka.—— Elkhart County Medical Society, at Elkhart, January 8: president, Dr. Martin K. Kreider, Goshen, and secretary, Dr. Enos M. Hoover, Elkhart.——Indianapolis Medical Society, at Indianapolis, January 2: president, Dr. Harry E. Gabe, and secretary-treasurer, Dr. Homer R. McKinstray (reelected), both of Indianapolis.——Owensville Medical Society: president, Dr. George B. Beresford, and secretary-treasurer, Dr. Karl S. Strickland.——Blackford County Medical Society, at Hartford City: president, Dr. James A. Taylor, Montpelier, and secretary, Dr. Manford M. Clapper, Hartford City.—— Kosciusko County Medical Society, at Warsaw: president, Dr. Angus C. McDonald, Warsaw, and secretary-treasurer, Dr. C. Norman Howard, Warsaw.——Vanderburg County Medical Society, at Evansville: president, Dr. Porter H. Linthicum, Evansville, and secretary-treasurer, Dr. William S. Ehrich, Evansville.——Wabash County Medical Association, at Wabash: president, Dr. Walter A. Domer, and secretary, Dr. Lawrence E. Jewett, both of Wabash.——Jackson County Medical Society, at Seymour: president, Dr. James H. Carter, and secretary-treasurer, Dr. L. Butler Hill, both of Seymour. ——Montgomery County Medical Society, at Crawfordsville: president, Dr. Paul J. Barcus, Crawfordsville, and secretary-treasurer, Dr. James L. Beatty, Crawfordsville.

MARYLAND

New Officers.—Talbot County Medical Society, at Easton, January 17: president, Dr. Philip L. Travers, Easton, and secretary-treasurer, Dr. William N. Palmer, Easton.——Baltimore County Medical Society, at Towson, January 17: president, Dr. William L. Smith, Sherwood, and secretary, Dr. G. Carville McCormick, Sparrows Point.

Baltimore

German Physician in Baltimore.—Dr. Edwin Lick, Dantzig, who is making a tour of the United States, recently spent a few days in Baltimore.

Personal.—Dr. Patrick F. Martin, coroner of Baltimore County, is convalescent after an attack of influenza.——Dr. Louis McLane Tiffany has gone to Florida for a month.—— Dr. Marcus L. Dillon, superintendent of the Franklin Square Hospital, is said to be critically ill in that institution from septicemia, following an operation wound.

Elections.—At the annual meeting of the Adjunct Medical Faculty of the University of Maryland, Dr. William Tarun was elected president; Dr. Erasmus H. Kloman, vice-president, and Dr. Harry D. McCarty, secretary-treasurer.——The medical staff of St. Luke's Hospital, at its meeting January 22, elected Dr. Ira L. Fetterhoff, president; Dr. M. Bowman Hood, vice-president; Dr. Barrett C. Catlin, secretary, and Dr. John A. Evans, treasurer. Dr. Austin E. Robinson was added to the staff and placed in charge of the children's department.

The Holman Association.—The first report of the Holman Association, whose aim is to teach the people in the country the value of hygiene and good living and to promote rural nursing, hygiene and social service, gives a concise history of the needs, which when brought before the citizens of Baltimore, crystallized in the formation of the association, a little over a year ago. Dr. William H. Welch is president of the association; Dr. George T. Tyler, physician, and Drs. DeWitt B. Casler, William H. Welch and William W. Russell are members of the board of directors.

MASSACHUSETTS

Library Bequeathed to College.—By the will of the late Dr. Albion S. Whitmore, Boston, his medical library is bequeathed to Bowdoin College.

Fire Destroys Hospital.—The main building of the Maternity Hospital of the New England Reform Society, Jamaica Plain, Boston, was destroyed by fire, January 17, with a loss of $25,000.

Fire in Leper Colony.—The administration building of the Massachusetts Leper Colony on Penikese Island at the entrance of Buzzard's Bay, was destroyed by fire January 13, with a loss of $10,000.

New Hospital for Melrose.—Plans for the new hospital at Melrose have been prepared. At present $55,000 has been bequeathed or subscribed to the hospital, which is to cost altogether about $110,000. The semi-pavilion type of hospital has been adopted by the trustees.

New Officers.—Fall River Medical Society, at Fall River: president, Dr. John F. Lowney, and secretary, Dr. George Blood.——Massachusetts Surgical and Gynecological Society, at Boston: president, Dr. Arthur H. Ring, Arlington, and secretary, Dr. Harry J. Lee, Boston.

Must Establish Hospitals.—The State Board of Health has sent notices to those municipalities which have not yet complied with the law relative to the maintenance of isolation hospitals, including tuberculosis hospitals or wards, calling their attention to the law and insisting on its observance.

Personal.—Dr. William D. Swan, Cambridge, has been appointed medical examiner for Middlesex.——Dr. John W. Coughlin, Fall River, has been appointed a trustee of the state farm.——Dr. Edgar A. Fisher has succeeded Dr. Charles L. Nichols as treasurer of the Worcester Milk Commission. ——Dr. Alexander A. McDonald, Dorchester, Boston, was struck by an automobile and sustained a fracture of the left elbow and scalp wounds.——Dr. Edward T. Manix, city physician for the Western district of Lynn, has resigned.——Dr. Edward M. Looney has been appointed assistant to the port physician of Boston.——Dr. George L. Farrell has been elected mayor of Malden, and Dr. Jeremiah J. Corbett, school director. ——Dr. Milo A. Jewett, Boston, has been nominated as consul at Kiehl, Germany.

V. 191

Boards of Health Meet.—At the annual meeting of the Massachusetts Association of Boards of Health held in Boston, January 25, Dr. Henry P. Walcott was reelected president; Drs. Samuel H. Durgin and Charles V. Chapin were elected vice-presidents, and Dr. Francis G. Curtis, Chestnut Hill, was elected treasurer. Resolutions were passed in opposition to two house bills, which proposed a reorganization of the State Board of Health and which gave the state board authority to regulate local boards of health. Papers were read by Prof. T. P. Corham of Brown University, Providence, R. I., on "The Sanitary Regulation of the Oyster Industry"; by Prof. Earl B. Phelps on "The Chemical Disinfection of Sewage," and by Dr. William H. Davis of the Boston Board of Health on "The Breast-Feeding of Infants."

MICHIGAN

New County Medical Society Organ.—The Alpena County Medical Society has established an official organ known as the *Alpena Medical News*, which is to be published in the interests of the professional men of the county, and contains the program, the medical society notes, minutes of the meeting and news items.

School for Tuberculous Children Opens.—As the result of the efforts of the Detroit Society for the Study and Prevention of Tuberculosis, the Detroit Hospital School for Tuberculous Children has been opened in direct connection with the Detroit Hospital, so that children can be treated and taught at the same time.

State Laboratory Requested to Make Wassermann Tests.—At the December meeting of the Muskegon-Oceana County Medical Society, a resolution was adopted that the secretary be instructed to write to the State Board of Health, requesting that it make arrangements to enable physicians of the state to have the Wassermann tests for syphilis made at the state laboratory without charge, in the same manner as is now arranged for sputum examination in cases of suspected tuberculosis.

New Officers.—Detroit Oto-Laryngological Society, January 12: Dr. Eugene Smith, president, and Dr. Emil Amberg, secretary-treasurer.——Adrian Medical Society, January 19: president, Dr. Frank Andrews, and secretary, Dr. Willie S. McKenzie.——Houghton County Medical Society, at Houghton: president, Dr. Will H. Dodge, Hancock, and secretary-treasurer, Dr. Robert B. Harkness, Houghton.——Michigan State Medical Association, at Battle Creek, January 11: secretary and editor, Dr. Wilfred Haughey, Battle Creek (re-elected).——Marquette-Alger County Medical Society, at Negaunee: president, Dr. William B. Lunn, and secretary-treasurer, Dr. Harry J. Hornbogen, both of Marquette.——Charlotte Medical Club, at Lansing: president, Dr. Warren H. Rand, and secretary, Dr. Allison R. Stealey.——Berrien County Medical Association, at St. Joseph, January 18: president, Dr. Louis A. King, Baroda, and secretary, Dr. Henry G. Bartlett, St. Joseph.

The Fight Against Tuberculosis.—At a joint meeting of the Detroit Tuberculosis Sanatorium and the Detroit Society for the Study and Prevention of Tuberculosis, January 16, it was decided June 11 should be Tuberculosis Blue-Star Tag Day. The sanatorium reported that during the last two years it had built and equipped a sanatorium, with accommodations for fifty patients and maintained it for a year with a total of 148 patients. The sanatorium at present represents an equipment of $89,000, on which there is some indebtedness.——At the annual meeting of the Grand Rapids Antituberculosis Society, January 3, Drs. Collins H. Johnston and Thomas M. Koon were elected members of the executive board, and these, together with Drs. Horace J. Beel, Ralph H. Spencer, Ralph C. Apted and Roy T. Urquhart were elected members of the medical staff. It was announced that $1,506 had been netted from the sale of Christmas seals. During the year 342 patients received treatment; 2,125 home calls were made and 483 calls at the free clinic.

Personal.—Dr. James Orton Edie, Grand Rapids, was struck by a street car January 25, and painfully injured.——Dr. William Hughes, Nunica, is reported to be critically ill.——Dr. Charles B. De Nancrede, Ann Arbor, is seriously ill and has gone to Johns Hopkins Hospital, Baltimore, for treatment.——Dr. Johnson B. Kennedy has been elected vice-president of the Detroit Board of Health.——Dr. Karl V. Arminen has resigned as health officer of Hancock.——Dr. John H. Kellogg, Battle Creek, has returned from Europe.——Dr. Benjamin P. Brodie, Detroit, is reported to be seriously ill with pneumonia.——Drs. George L. Koessler and James B. Hodge have been appointed assistant obstetricians on the staff of Grace Hospital, and Dr. Neil I. Bentley, assistant obstetrician and oto-laryngologist. A department of special therapy and research has been established at Grace Hospital, with Dr. Rollin H. Stevens as *x*-ray specialist and Dr. George P. Myers as pathologist. The hospital has also established a department of orthopedic surgery, under the charge of Dr. F. C. Kidner.

MISSOURI

Meningitis in Kansas City.—Between January 1 and 24, eight cases of spinal meningitis were treated at the Kansas City General Hospital and five patients are still under treatment in the institution.

Personal.—Dr. Carl C. Leeper, Excelsior Springs, is a patient in the South Side Hospital, Kansas City, ill with septicemia affecting the right foot.——Dr. William C. O'Neal, La Grange, while making a professional call in the country, fell from his buggy and a wheel passed over his ankle, causing a severe sprain.

State Board Elected.—At the annual meeting of the Missouri State Board of Health in Jefferson City, January 16, Dr. Frank B. Fuson, Springfield, was elected president, and Dr. Milton P. Overholser, Nevada, vice-president. The secretary, Dr. Frank B. Hiller, and state bacteriologist, Dr. Murray C. Stone, both of Jefferson City, were reelected.

Hospital News.—A bill is to be introduced in the state legislature having for its object the changing of the state laws so that the health departments of St. Joseph and Buchanan County may be consolidated and merged into one.——The Kansas City General Hospital, in use only three years, with accommodations for 230 patients, is overcrowded and an extension is necessary. There is still a provision in the original plans of the hospital for a second wing, which would provide accommodations for 150 additional patients.

New Officers.—Macon County Medical and Surgical Society, at Macon: president, Dr. George F. Brewington, Bevier, and secretary-treasurer, Dr. Alfred B. Miller, Macon.——Jackson County Medical Society, at Kansas City, January 2: president, Dr. James Q. Chambers, and secretary, Dr. Rush E. Castelow, both of Kansas City.——Clinton County Medical Association, at Plattsburg: president, Dr. Chester H. Risley, Cameron, and secretary-treasurer, Dr. Frank H. Fulton, Plattsburg.——Pike County Medical Society, at Louisiana, January 1: president, Dr. Donnell M. Pearson, and secretary, Dr. John W. Turner, Louisiana.——Holt County Medical Society, at Mound City, January 4: president, Dr. Willard C. Proud, and secretary, Dr. Walter S. Wood, Oregon.——Grundy County Medical Society, at Trenton: president, Dr. Edgar A. Duffy, Trenton, and secretary, Dr. George W. Belshe, Brimson.

St. Louis

Library to Medical Society.—By the will of the late Dr. Edward Borck, his pictures and library, after the death of his widow, are bequeathed to the St. Louis Medical Society.

The City Hospital Alumni Banquet.—At the thirteenth annual meeting and banquet of the Medical Society of City Hospital Alumni, held January 4, Dr. John C. Falk was elected president; Dr. Charles W. Thierry, vice-president; Dr. Frederick C. Simon, secretary, and Dr. Percy H. Swahlen, treasurer.

Police Surgeons Named.—Drs. Charles W. Bassett, George W. Becker, Lancaster G. Washington and Paul Vinyard have been named as assistant surgeons to the police department. Dr. Bassett is to have charge of the physical training of the police department and the three others are to have charge of the southern, northern and western districts of the city, respectively.

Hospital Contract Awarded.—The building contract for the Barnes Hospital, to be erected on King's Highway, has been awarded for $808,000. The building is to be completed, ready for equipment, inside of eighteen months. The present plans provide for the erection of six buildings, namely: a private patients' ward building, surgical ward, administration building and medical ward, service building and laundry. All of these buildings are to be connected by corridors.

The Defective Child.—The program committee of the St. Louis Medical Society announces that it has arranged for a series of symposiums devoted to the defective child and its problems. On January 20 the oto-laryngologic aspect of the question was considered under the auspices of that Section. On February 10 the symposium subject is "The Physically Defective and Crippled Child" and on March 2 the Ophthalmic Section discusses "The Eye Conditions in the Defective Child."

NEW JERSEY

Money to Aid Consumptive Children.—Andrew Carnegie and John D. Rockefeller are reported to have subscribed $10,000 each to the $150,000 fund being raised for new buildings for the Tuberculosis Preventorium for Children, Farmingdale, N. J. Only $15,000 now remains to be subscribed.

State Health Officers Elected.—At the annual business meeting of the Health Officers' Association of New Jersey, held in Trenton, January 17-18, Dr. Edward Guion, Atlantic City, was elected president; B. H. Obert, Asbury Park, vice-president, and J. Scott McNutt, Orange, secretary and treasurer.

New Officers.—Burlington County Medical Society, at Mount Holly, January 10: president, Dr. William P. Melcher, Mount Holly, and secretary-treasurer, Dr. George T. Tracy, Beverly. ——Atlantic County Medical Society, at Atlantic City, January 12: president, Dr. David A. Berner, and secretary-treasurer, Dr. Edward Guion (reelected).

Marvel Wins Suit.—In the suit brought against Dr. Emery Marvel, Atlantic City, by Mrs. Eva A. Folsom, in which it was alleged that Dr. Marvel or some assistant, following an operation for appendicitis on the plaintiff, had accidentally left a forceps sewed into the wound, and that in consequence the plaintiff has suffered to the extent of $20,000, the jury returned a verdict in favor of Dr. Marvel.

NEW YORK

Recommends Improvement at Quarantine.—In his annual report to the legislature, Dr. Alvah H. Doty, health officer of the port of New York, recommends that a legislative committee be appointed to inspect the quarantine establishment, especially Hoffman and Swinburne Islands, with a view to securing an appropriation for construction, reconstruction and equipment.

Personal.—Dr. George S. Allen has been appointed postmaster of Clyde.——Dr. Charles W. Clendenan, North Tonawanda, while attempting to crank his automobile, January 28, fractured his right arm at the wrist.——Dr. George H. Minard has been appointed health commissioner at Lockport.——Dr. C. H. Benson has been elected secretary and registrar of the Sycamore Free Dispensary.

State Society Meetings.—The annual meeting of the Medical Society of the State of New York will be held in Albany, April 16-18. Drs. Harvey W. Wiley, Washington, D. C., and Abraham Jacobi, New York City, will be the principal speakers on the opening day.——The annual meeting of the Woman's Medical Society of New York State will be held May 10 in Buffalo, under the presidency of Dr. Grace Peckham Murray, New York City.

New Officers.—The Associated Physicians of Long Island, at Brooklyn, January 27: President, Dr. William B. Brinsmade, and secretary, Dr. James Cole Hancock, both of Brooklyn.——Westchester County Medical Society, at White Plains, January 15: President, Dr. Frank E. Russell, Tarrytown, and secretary, Dr. Edward W. Weber, White Plains.——Schenectady County Medical Society, at Schenectady: President, Dr. Albert S. Fay, Schenectady.——Amsterdam City Medical Association, January 11: president, Dr. Julius Schiller, and secretary-treasurer, Dr. David Wilson, both of Amsterdam.——Canandaigua Society of Physicians and Surgeons, January 13: President, Dr. Orlando J. Hallenbeck, and secretary-treasurer, Dr. Henry C. Burgess.——Oneida County Medical Society, at Utica, January 8: President, Dr. Thomas H. Farrell, and secretary, Dr. William B. Roemer.

New York City

Mott House Sold.—The old Mott Memorial and Surgical Library Building, 64 Madison Avenue, the history of which was referred to in THE JOURNAL of last week, has been sold by auction, for $70,000.

Refused Vaccine Appropriation.—The request of Commissioner of Health Lederle for a special appropriation of $10,000, with which to employ a staff of thirty or forty physicians, for vaccination, was refused by the Board of Aldermen, January 30.

Personal.—Dr. James J. Walsh, dean of Fordham College, has been appointed a member of the consulting editorial staff of the New York *Herald*.——Drs. George S. King and Frank M. Gardiner, Bay Shore, have resigned from the staff of the Babylon Hospital.

New Officers.—The Northern Medical Society of the City of New York was recently organized by physicians of Upper Manhattan and the Bronx. Dr. William J. Robinson was elected president and De Witt Steddan, corresponding secretary.——Burough Park physicians have organized the New Utrecht Medical Society, with Dr. James Bertram Dowd, president, and Dr. Murray B. Gordon, secretary.

Prohibits Sale or Use of Wood Alcohol.—At the meeting of the Department of Health of the City of New York, January 23, a new section in the sanitary code was adopted whereby the sale or use of wood alcohol in any food or drink, or in any preparation or mixture intended for internal or external use by man is prohibited. This action is directed not only against the use of wood alcohol in food and drink, but also against its use by barbers and others in hair tonics, face lotions and other external preparations.

NORTH CAROLINA

Sanatorium Incorporated.—The Blue Ridge Sanitarium has been incorporated at Hendersonville, by Dr. John R. Williams and associates, with a capital of $50,000.

Personal.—Dr. William W. McKenzie, Salisbury, who was injured in an automobile wreck two years ago, is in Baltimore undergoing a second operation on the injured foot.——Dr. Louis J. Picot, Raleigh, for four years second assistant physician of the State Hospital for the Insane, was elected superintendent January 30, vice Dr. James McKee, deceased, and Dr. Thomas O. Coppedge, Kenansville, was elected second assistant physician. Dr. Picot has served as secretary of the State Society for six years, as a member of the State Board of Medical Examiners for six years and later as its president.——Dr. Alfred A. Kent, Lenoir, president of the Medical Society of North Carolina, is convalescent at his home after an attack of lobar pneumonia.——Dr. William K. Reid, Charlotte, while wrestling, January 20, fell, breaking his right leg near the ankle.——Dr. Albert R. Wilson has been elected city physician of Greensboro.

OHIO

Personal.—Dr. Louis M. Early, Columbus, had his left arm amputated at the shoulder, January 26, at Mount Carmel Hospital, for malignant disease due to an *x*-ray burn.——Drs. Fred G. King and Lauren E. Flickinger have succeeded Dr. Silas B. Post as city physician of Canton.——Prof. Eugene F. McCampbell, Columbus, was elected secretary of the State Board of Health, January 24, vice Dr. Charles O. Probst, Columbus, resigned.——Dr. Joshua R. McCally has been elected president and Dr. Charles C. McLean, secretary, of the Dayton Physicians' Business League.——Dr. Michael H. Carmedy has been appointed local surgeon at Painesville for the Baltimore and Ohio Railroad.——Dr. Louis Kahn has been appointed health officer of Columbus and Dr. Harry C. Gabriel president *pro tempore* of the board of health.——Dr. John Donley has been appointed a member of the board of health of Columbus.

New Officers.—Cleveland Academy of Medicine, at Cleveland: president, Dr. John V. Gallagher, and secretary, Dr. Jacob E. Tuckerman.——Ashland County Medical Society, at Loudonville, January 16: president, Dr. Wilson M. McClellan, and secretary, Dr. William F. Emery, both of Ashland.——Guernsey County Medical Society, at Cambridge, January 22: president, Dr. Fred W. Lane, and secretary, Dr. Albert B. Headley, both of Cambridge.——Butler County Medical Society, at Hamilton, January 17: president, Dr. Louis H. Frechtling, and secretary, Dr. Wilmer E. Griffith, both of Hamilton. ——Stark County Medical Society, at Canton, January 16: president, Dr. Daniel S. Gardner, Massillon, and secretary-treasurer, Dr. Charles A. LaMont, Canton.——Logan County Medical Society, at Bellefontaine, January 3: president, Dr. Frank R. Makemson, Lewiston, and secretary-treasurer, Dr. Guy H. Swan, Bellefontaine.——Marion County Medical Society, at Marion, January 2: president, Dr. Fillmore O. Young, and secretary, Dr. Robert C. M. Lewis.——Seneca County Medical Society, at Tiffin: president, Dr. Robert G. Steele, Melmore, and secretary, Dr. Edwards H. Porter, Tiffin.——Allen County Medical Society at Lima: president, Dr. Lewis F. Laudick, and secretary, Dr. Edgar J. Curtiss, both of Lima.—— Coshocton County Medical Society, at Coshocton: president, Dr. Fremont M. Marshall, and secretary-treasurer, Dr. Jacob D. Lower, both of Coshocton.——Crawford County Medical Association, at Bucyrus: president, Dr. Claude A. Lingenfelter, Bucyrus, and secretary-treasurer, Dr. Edward R. Schoolfield, Bucyrus.

PENNSYLVANIA

County Society Buys Club House.—The Venango County Medical Society has purchased a club house at Reno, midway between Franklin and Oil City and on the railroad and street car lines, and fitted it up for society meetings.

V. 191

Bulletin Suspends Publication.—The *Bulletin of the Luzerne County Medical Society*, one of the largest and best of the county society papers, has suspended publication.

Personal.—Dr. Rudolph A. Kern of Erie, who has spent the past year in Berlin, has resumed his practice in Erie.——Dr. John A. McKenna, Lansdowne, has been appointed state medical inspector for the eastern district of Delaware County.

Philadelphia

St. Timothy's Staff Inoculated.—During the epidemic of typhoid fever, the staff of the St. Timothy's Hospital, Roxborough, were inoculated with the anti-typhoid serum, and while there have been many patients suffering with typhoid admitted to the hospital, not one of the staff or nurses has taken the fever.

Birthday Anniversaries.—On the occasion of the seventy-fifth birthday anniversary of Dr. William W. Keen, January 2, his three daughters tendered him a reception and tea, which was attended by several hundred who brought congratulations and gifts.——Dr. Monroe L. Van Zant celebrated the ninetieth anniversary of his birth, January 26.

New Officers.—Section on Ophthalmology of the College of Physicians: chairman, Dr. William M. Sweet, and clerk, Dr. Thomas B. Hollaway.——Philadelphia Clinical Association: president, Dr. Nathan G. Ward, and secretary, Dr. Harry Hudson.——Samaritan Hospital Medical Society: president, Dr. John Leedom, and secretary-treasurer, Dr. Chas. T. Russell, Jr.

City Eye Clinic Assistant.—Dr. Joseph S. Neff, director of public health and charities, has asked Mayor Blankenburg to recommend the appointment of an assistant ophthalmologist at a salary of $800. Since the City Eye Clinic was started in 1908, 5,000 children with defective vision have been examined and of this number 3,695, or 74 per cent., were shown to have been backward in school. They were backward to the extent of 8,434 years, representing a money loss to the tax-payers of the city of $295,190, based on the cost of instruction of $35 a year for each child. At the present time, Dr. Lewis C. Wessels, the ophthalmologist, keeps the records and does all the clerical work, and in addition makes all examinations.

Personal.—Dr. S. Weir Mitchell was reelected president of the Franklin Inn Club, February 1.——Dr. Frederick C. Chiffinos, Jr., has been appointed consul for Venezuela in Philadelphia.——Dr. Matthew Woods will spend February, March and April in Europe and Asia.——Dr. Burton Chance has resigned as secretary of the Wills Hospital Ophthalmic Society to become chief ophthalmic surgeon to the Pennsylvania System. He has been succeeded as secretary by Dr. J. Milton Griscom.——Dr. Walter L. Pyle is spending his mid-winter holiday at Belleair, Fla.——At the inauguration day exercises of Johns Hopkins University, February 22, the honorary degree of LL.D. will be conferred on the orator of the occasion, Dr. S. Weir Mitchell, who is to speak on George Washington.

TENNESSEE

Pellagra Commission Appointed.—Dr. John W. Barksdale, the retiring president of the Tri-State Medical Association, has appointed as the Tennessee members of the commission to obtain needed legislation on pellagra in Arkansas, Mississippi and Tennessee: Drs. William Krauss, Memphis; Landon A. Yarbrough, Covington, and Nicholas Walker, Dyersburg.

Personal.—Dr. Morton M. Snow, medical referee for the Massachusetts Life Insurance Company at Nashville, has been made medical inspector for the company, with headquarters at Springfield, Mass.——Dr. Cooper Holtzclaw, Chattanooga, starts on a trip around the world, via San Francisco, February 6.——Dr. Albert S. Witherington, Munford, was caught in a log-chain near that place and thrown violently to the ground, fracturing his left leg.——Dr. Henry P. Dulaney, Blountville, surgeon to the National Soldiers' Home, Johnson City, has been transferred to the National Soldiers' Home, Danville, Ill.

Medical Corps Reorganized.—As a result of an examination recently conducted at Chattanooga for aspirants to commissions in the medical corps of the Tennessee National Guard, the following physicians have been appointed: Majors James H. McCall, chief surgeon, Huntingdon; James R. Nankivell, sanitary inspector, Athens; Buford N. Dunavant, Memphis, and Henry M. Cass, Morristown; Captains Larkin Smith, Nashville; John Moore, Nashville; Robert B. Underwood, Memphis; Samuel L. Wadley, Memphis; J. Logan Morgan, Chattanooga; Stanley R. Teachout, Nashville; James B. Cox, Huntingdon; Robert H. Newman, Knoxville, and John H. McSwain, Paris; lieutenants, C. C. Hacker, Elizabethton; Karl H. Rogers, Knoxville; Edwin A. Sayers, Nashville; Percy A. Perkins, Memphis.

WASHINGTON

Personal.—Dr. Thomas A. M. Ward, Seattle, has assumed his duties as medical adviser of the Alice J. Prather Sanatorium at Walla Walla.——Dr. George W. M. Wimberly, Davenport, has reentered the government Indian service as physician in charge at Fort Simco, near North Yakima.——Dr. Henry Baer, Mansfield, while making a professional call, was caught in a snowstorm, fell asleep and narrowly escaped death from cold.——Dr. Leon G. Woodford has been appointed health officer of Everett.——Drs. Frank Rose and John H. O'Shea have been appointed local physicians for the Northern Pacific Beneficial Association at Spokane.——Dr. Walter F. Hoffman, Seattle, has gone abroad.——Drs. Frank S. Pratt, Stevenson; Henri L. Pettit, Chehalis; N. C. McLafferty, Winlock; Charles C. McCown, Vancouver; R. A. Quigley, Everett; Richard L. Smith, Washougal, and Donald C. Urie, Camas, have been appointed physicians to the State Industrial Insurance Commission.

WEST VIRGINIA

Successful Campaign for Hospital.—The eleven-day campaign for $250,000 for a new city hospital for Wheeling closed triumphantly December 19, with total subscriptions of $262,805.92, or $12,805.92 more than the amount required. The hospital, as planned, is to be erected at Twentieth and Eoff Streets, and will be fire-proof, six stories in height and will accommodate about 135 patients.

Personal.—Dr. James W. Abercrombie, Dallas, mayor of Warwood, who underwent a serious surgical operation in December in the City Hospital, Wheeling, is convalescent and has resumed practice.——Dr. Cassius C. Hogg has been appointed medical examiner for the public schools of Huntington.——Fire in the Hibler Block, White Sulphur Springs, caused the total destruction of the office of Dr. Girlonza L. Wyatt.

WISCONSIN

Ill and Injured.—Dr. Arthur T. Holbrook, Milwaukee, fractured his right arm while cranking his automobile, January 23.——Dr. Ralph R. Chase, Eau Claire, was thrown from his buggy several weeks ago, fracturing his ankle, is convalescent and has resumed office work.——Dr. Olaf M. Sattre, Rice Lake, who has been taking treatment for rheumatism at Mount Clemens, has returned greatly improved.——Dr. G. Warren Newell, Burlington, who has been ill with an infection of the eye in Mercy Hospital, Chicago, is convalescent and will soon return home.——Dr. Harry A. Vedder, Edgar, has recovered from an attack of typhoid fever.——Dr. Carl Von Neupert, Stevens Point, who has been ill for two weeks, is convalescent and has resumed practice.——Dr. Archibald D. Campbell, Richland, who has been seriously ill at his home, is reported to be improving.——Dr. Eli J. Smith, Neenah, who was operated on at Oshkosh recently for the removal of particles of glass from his hand, has returned and resumed practice.——Dr. August L. Beier, Chippewa Falls, is reported to be ill with pneumonia.——Dr. Frederick A. Thayer fractured his wrist while cranking his automobile, January 3.——Dr. William O. McBride, Marinette, is ill with typhoid fever at the Menominee River Hospital.

GENERAL

Tri-State Association.—The fourteenth annual meeting of the Tri-State Medical Association of the Carolinas and Virginia will be held in Columbia, S. C., February 21 and 22, under the presidency of Dr. J. Howell Way, Waynesville, N. C. Dr. Rolfe E. Hughes, Laurens, S. C., is secretary and treasurer. The program figures more than sixty papers from the three constituent states. Only members in good standing in their respective state societies are eligible to acquire or retain membership in this association.

Prizes at Boston Otologic Congress.—At the ninth International Otologic Congress, to be held in Boston this year, several prizes are to be awarded. *Lenval Prize:* In 1881, Baron Leon de Lenval, at the instigation of Dr. Benni of Warsaw, gave $600 (3,000 francs), the income of which (about $25), accumulating in the interval between two congresses, is given to the author of the best work on the anatomy, physiology or pathology of the organ of hearing, published during these three years. The award of this prize is a majority vote of a jury of nine, elected by the general assembly of the last congress. The printed works must be sent to the president of the jury, four months before the congress. Authors who have received any prize founded for the International Otologic Congress cannot compete for the Lenval prize. The award of the prize must be announced during the congress, after which the prize is sent to the successful candidate.——*Adam Politzer Prize:* In 1909, Professor A. Politzer, in Vienna, gave $600 (3,000 kronen, Austrian), the interest of which, between two

congresses, is to be awarded to the author of the best work in the field of otology published in print within the last three years. The Lenval rules hold good also for this prize.—*Cozzolino Prize:* The Cozzolino fund of $200 (1,000 lire) was founded by the late Professor Vincenzo Cozzolino of Naples in 1909; the interest, accumulating in the interval between two congresses, is given to the author of the best publication on the anatomy or pathology of the organ of hearing, on clinical therapeusis, local and general, and on the application of electric mechanical appliances for the treatment of lesions indicated by progressive impairment of hearing and subjective noises, published during the interval between two congresses. The Lenval rules hold good here also. Dr. C. J. Blake, 226 Marlboro Street, Boston, is a member of the jury. The other members are in Europe.

FOREIGN

The Silver Jubilee of a Belgian Medical Society.—In December the Liége Société Médico-Chirurgicale celebrated by a banquet and gala theater performance the fiftieth anniversary of its foundation. There was also a scientific meeting the following day at which Professor P. Heger delivered an address with moving pictures on the "Battle of the Cells," first paying homage to two famous members of the society, T. Schwann and E. van Beneden, the former first demonstrating the analogy in shape and structure between the plant and animal cell, and consulting his bishop before promulgating his discovery, for fear that it might undermine religious faith. The festivities closed with a second banquet, at which a collection was taken up for the widow of a confrère.

The Approaching International Tuberculosis Congress.—Extensive preparations have been made for this international gathering to be held at Rome, Italy, April 14 to 20, 1912, to discuss ways and means to prevent and cure tuberculosis. The congress was postponed from last fall to this date on account of the cholera in Italy in 1911. Membership is open to all interested in the study and prevention of tuberculosis, and an antituberculosis exhibition will be one of the main features. A large membership of physicians from this country has already been enrolled, many of them delegates from institutions and societies. The annual international tuberculosis conference precedes the congress, being called for April 13. This is the seventh congress of the kind, the last having been held at Washington, D. C., in 1908, with 4,000 delegates in attendance at the first general meeting, representing thirty-three foreign countries. At the approaching congress Guido Baccelli, the eminent medical statesman of Italy, teacher, clinician and archeologist, will preside. The general secretary and treasurer is Professor V. Ascoli, 36 Via in Lucina, Rome, Italy.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, Jan. 27, 1912.

The Health of the People

An important report has been issued by the local government board on public health and local administration. The passing of the Housing and Town-Planning Act of 1909 has resulted in a more careful consideration of the housing problem in many districts. During 1910 returns were received from 252 urban and fifty-five port sanitary authorities, controlling an aggregate population of 19,532,548, showing the cases of infectious disease notified. There were 71,710 cases of scarlet fever with 1,619 deaths; 25,170 of diphtheria with 2,578 deaths; 15,247 of erysipelas with 519 deaths; 6,693 of typhoid fever with 1,189 deaths; 1,340 of puerperal with 550 deaths; 109 of smallpox with eleven deaths. In London the number of infectious cases has been comparatively small: scarlet fever, 10,509; diphtheria, 5,494; typhoid fever, 1,284; cerebrospinal meningitis, 115; and smallpox, seven. For tuberculosis some 600 beds have been provided in sanatoriums by sanitary authorities and 3,700 by private enterprise or charity.

Food and Adulteration

Careful inspection of food for sale has taken place. Samples numbering 100,740 were analyzed during the year. The proportion reported against was 8.2 per cent. as compared with 7.5 in 1909. The methods of procuring samples for analysis have been considerably changed. Formerly it was a common practice to send officers in uniform to select samples for the analyst. The result was that few were found adulterated. Now samples are procured informally by private purchasers. Of the total number of samples analyzed offenses were discovered in 8,510 cases. The examination of milk and cream receives a large amount of attention. Samples numbering 47,895 were examined during the year; 5,332 (11.1 per cent.) were found adulterated or failed to reach the minimum limits fixed by the Board of Agriculture. London appears to be better off in this respect than the provinces, for the percentage of milk and cream samples reported against was 9.9. In the eighteen largest provincial towns the rate was 11.5 per cent. and in the remainder of the country 11.6. The board continues to receive reports of the practice of reducing milk of good quality to the limits fixed by the milk regulations. Thus the analyst for Portsmouth says, "Some dairies in the town appear to reduce the whole of the milk they receive from farmers, generally by the addition of separated milk, until the amount of cream present is brought down to the limit fixed by law." Even when the milk is a little lower than the standard the offender usually escapes. The analyst is precluded, in certifying, from comparing the sample with the average of the district but has to compare it with the standard fixed for the whole country and convictions cannot be obtained for a small deficiency. Samples of butter, numbering 20,742, were examined and 1,048, or 5.1 per cent., were condemned. In London the percentage was 6.5. The adulterated butter contained in addition to foreign fats, an excessive amount of water.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, Jan. 12, 1912.

Personal

The well known ophthalmologist, Professor Horstmann, died in Berlin, from cancer, January 16, aged 64. He was for many years an assistant of Professor Schweigger, the successor of Albert von Graefe. In 1879 after study abroad, Horstmann joined the faculty of Berlin, and in 1898 he was made professor extraordinary. His numerous scientific works are both anatomic and clinical. After the death of Schweigger he became the chief editor of the *Archiv für Augenheilkunde*, and since their foundation he has been a collaborator on the *Deutsche med. Wochenschrift, Jahrbuch für praktische Medizin*, and the *Reichsmedizinalkalender* (annual medical directory). His practice was proportionately very extensive.

Discussion Regarding the International Opium Conference

A few days ago another conference was held in the state interior department (Reichsamt des Innern), to discuss the transactions to date of the international opium conference. The German delegates, who are now to return to The Hague, to which city the conference is adjourned, have requested information as to their further position. The conference has already adopted three resolutions proposed by England. According to these the export of raw opium to countries which forbid its import is to be hindered, and further marks of identity are to be established for the export of quantities over 5 kilograms, and, furthermore, the import and export shall be entrusted to the agency of certain specified persons. According to the proposal of Germany the transportation is to be regulated by the international postal union. Finally, a limitation may be imposed on importation and exportation, provided that the conditions of commerce do not oppose it.

Systematic Campaign Against Cancer

The last number of the *Zeitschrift für Krebsforschung* republished an address delivered last year before the central committee for cancer research by the Königsberg gynecologist, Professor Winter, on the campaign against cancer in the kingdom of Prussia, which contains a number of valuable general points on this important subject. As the conclusion of his work, which deals especially with the education of the public in regard to the symptoms of and ways and means for combating cancer, the lecturer proposed a number of measures which he urged the cancer committee to undertake. One suggestion is that the cancer committee should send to all clinical and academic medical teachers a circular requesting them, either personally or through their assistants, to publish in the medical press from time to time instructive articles on cancer and its prophylaxis. The cancer committee itself shall publish an article of instructions for physicians and send it to all Prussian physicians or have it sent out by the government. The government is to be requested to publish a supplement to the official book of instructions for nurses on the relations of nurses to cancer patients. Further, the government shall be asked to notify the district physicians to give thorough instructions to midwives at all of the regular supplementary examinations regarding the course they shall pursue if cancer is suspected. The cancer committee shall secure proper speakers for the instruction of the public in

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large assemblies. It shall further provide articles for the instruction of the public and make arrangements to get them published in proper periodicals. The government is to be requested to publish short instructions in official circulars, and to have a circular distributed by the officials to all householders in the country. [Winter's work as the apostle of prophylaxis of cancer of the uterus has often been mentioned in THE JOURNAL. His success in the local field has inspired him with the hope that similar measures, such as the above, might well be extended to the whole country.—ED.]

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, Jan. 16, 1912.

Wood Alcohol Prohibited in Austria in Foods and Drugs

As a consequence of the numerous fatal casualties in the asylum in Berlin, where more than sixty lives were lost recently (see Berlin Letter, THE JOURNAL, Jan. 27, 1912, p. 290) by the use of adulterated alcohol, the Austrian board of health has just issued an ordinance in which the use of methylated spirit is strictly specified and its sale limited to certain industrial purposes. In the manufacture of certain varnishes and in the leather business, as well as in the chemical industries, it is an indispensable substance; but a number of beverages, sweets and also pastry contain sometimes a small percentage of this alcohol. Its use for all and sundry articles has now been absolutely prohibited. It is also contemplated to replace it by other less dangerous substances, even in the process of making the ordinary spirit, used for heating and lighting purposes, unfit for human consumption. It will be remembered by medical men that some time ago, when Ehrlich's injections of salvarsan were tried in Prague, unfavorable reports came from that city regarding the effects of the compound. It was found out that the bad results were due to the presence of methyl alcohol in the solvent used, and since that time all medicinal preparations in Austria have had to be made without any trace of this dangerous alcohol.

Birthday Honors to Professor Ludwig

The lecturer on medical chemistry of the Vienna University, Professor Ludwig, recently celebrated his seventieth birthday. For a number of years this scientist has been active in this city and has been one of the most esteemed and beloved teachers of students. His pupils are in important positions all over Austria and Germany and he is himself one of the chief personalities of the Austrian board of health, which has become an important international organization through his perseverance. Forensic chemistry has been brought to such a high point by his endeavors that this alone would suffice to make his name widely known in the scientific world. His pupils and friends arranged a private celebration of the memorable day, while the official recognition of the date will take place later.

Marriages

EDWIN BROOKS MAYNARD, Lieutenant, M.R.C., U. S. Army, to Miss Catharine Lindsay Jarman of Charlottesville, Va., at Baltimore, January 22.

VANDER FRANKLIN COUCH, M.D., Jennings, N. C., to Miss Mautie White of Yadkin County, N. C., at Statesville, N. C., January 16.

WILLIAM LANDRAM MCFARLAND, M.D., New York City, to Miss Frances McElwee of Berlin, Germany, Dec. 27, 1911.

LLOYD LEWELLYN SMITH, Captain, M.C., U. S. Army, to Miss Mary Edith Conser, at Johnstown, Pa., January 24.

FREDERICK SNELL WRIGHT, M.D., McMechen, W. Va., to Miss Ida M. Gesner at Wilmington, Del., July 10, 1911.

ETHAN ESTEY WAGGONER, M.D., Tonkawa, Okla., to Miss Flora E. Garrett of Ponca City, Okla., January 14.

ROBERT MCWILLIAM O'NEAL, M.D., Reno, Nev., to Miss Aimee Hope Ford of Piedmont, Cal., Dec. 16, 1911.

HILDEGARDE H. LONGSDORF, M.D., Carlisle, Pa., and John L. Ayer of Chester, Pa., at Media, Pa., January 27.

RUFUS C. FRANKLIN, M.D., Graymont, Ga., to Miss Winey Coleman of Swainsboro, Ga., January 17.

JULES L. BIERACH, M.D., Harlan, Ky., to Miss Alyce Danforth of St. Joseph, Mich., Dec. 24, 1911.

ANTON G. RYTINA, M.D., Baltimore, to Miss Catherine Gier, at Washington, D. C., January 24.

HERMENEGILD KLIMA, M.D., Tyndall, S. Dak., to Miss Libuse Mencl of Chicago, January 30.

OLIVER J. FLINT, M.D., to Miss Josephine Stoody, both of Princeton, Ill., January 12.

GEORGE R. CLARK, M.D., to Miss Louise H. Atha, both of Philadelphia, January 16.

Deaths

Mathias Adolph Edward Borck, M.D. University of Maryland, Baltimore, 1863; Washington University, St. Louis, 1874; a member of the American Medical Association; formerly vice-president of the St. Louis Medical Society; acting assistant surgeon in the United States Army and later assistant surgeon of the Tenth Maryland Volunteer Infantry and Third Maryland Volunteer Calvary during the Civil War; a practitioner of St. Louis since 1872 and one of the founders of, and professor of surgery in, the St. Louis College for Medical Practitioners; died at his home in St. Louis, January 20, from senile debility, aged 77.

Lewis H. Weatherby, M.D. Eclectic Medical Institute, Cincinnati, 1857; a surgeon of the Seventh Missouri Volunteer Calvary during the Civil War; a member of the Missouri State Commission for Revision of the Constitution in 1866; for many years a practitioner of Maysville; prosecuting attorney and probate judge of DeKalb County; postmaster of Maysville for several years and collector of internal revenue for the Western District of Missouri; one of the founders of the town of Weatherby, Mo., but for five years a resident of Hobart, Okla; died in a hospital in St. Joseph, Mo., January 20, aged 82.

William Asa Wheeler, M.D. Medical School of Maine, Brunswick, 1876; College of Physicians and Surgeons, New York City, 1877; for several years an officer of the U. S. Marine-Hospital Service and in charge of the United States Immigration Bureau, Ellis Island, New York; formerly professor in surgery in Niagara University, Buffalo, N. Y.; once president of the Portland (Maine) Board of Trade; died at his home in that city, January 20, aged 58.

Marion Fraser Marvin, M.D. Kentucky School of Medicine, Louisville, 1897; a member of the Association of Military Surgeons of the United States; from 1904 to 1906 a contract surgeon U. S. Army, and on the organization of the Medical Reserve Corps commissioned as lieutenant therein, with service in the Philippine Islands; who was honorably discharged from the Army, Oct. 16, 1909; died at his home in Jacksonville, Fla., January 15, aged 37.

Samuel Edgar Freeman, M.D. College of Physicians and Surgeons, New York City, 1858; surgeon of the Forty-Second Indiana Volunteer Infantry throughout the Civil War and thereaffer a dentist of Buffalo, N. Y.; for many years president and librarian of the Buffalo Dental Society and secretary of the New York State Dental Society; died at his home in Buffalo, Dec. 11, 1911.

Asa Clark, M.D. Rush Medical College, 1848; a resident of California since 1849; a member of the American Medical Association; from 1861 to 1892 assistant physician at the Stockton State Hospital and from 1892 to 1896 superintendent of that institution; founder of Clark's Sanitarium, Stockton; died at his home in that city, January 20, from bronchitis, aged 87.

Philip Frank, M.D. Kentucky School of Medicine, Louisville, 1885; a member of the American Medical Association and once president of the Washington State Board of Health; for many years health officer of Yakima County and North Yakima; a pioneer practitioner of the Yakima Valley; died at his home in North Yakima, January 19, from nephritis, aged 60.

Atwell William Swett, M.D. Dartmouth Medical School, Hanover, N. H., 1864; a member of the American Medical Association; assistant surgeon of the Twenty-Ninth Maine Volunteer Infantry during the Civil War; a member of the staff of the Eastern Maine General Hospital, Bangor, from 1903 to 1910; died at his home in Bangor, January 17, aged 71.

Nathan D. Tobey, M.D. University of Maryland, Baltimore, 1863; a member of the Golden Belt Medical Society, formerly president of the Salina (Kan.) Medical Association; for twenty-five years a practitioner of Salina and for three years editor of the *Salina Herald;* died at his home in Vaughn, N. Mex., January 19, aged 74.

Robert Hume Tatum, M.D. University of Tennessee, Nashville, 1894; Chattanooga (Tenn.) Medical College, 1899; a member of the American Medical Association and formerly secretary and treasurer of the Walker County (Ga.) Medical Society; physician to the Georgia state penitentiary and local surgeon to the Central of Georgia Railway; president of the Chattanooga Academy of Medicine in 1904 and a member of the visiting staff of the Erlanger Hospital, Chattanooga; died at his home in that city, January 18, aged 38.

Lyman Watkins, M.D. Eclectic Medical Institute, Cincinnati, 1877; of Blanchester, O.; professor of pathology and physiology in his alma mater; a member of the Ohio State Medical Association; consulting physician to Seton Hospital; died suddenly in that institution, January 21, after a surgical operation, aged 57.

Adolph Billhardt, M.D. University of Leipsic, Germany, 1856; surgeon of volunteers during the Civil War; from 1904 to 1907 United States consul to Moscow, Russia; for forty-five years a resident of Upper Sandusky, Ohio; died at his home, January 22, from senile debility, aged 78.

James Fabius Beckwith, M.D. College of Physicians and Surgeons, Baltimore, 1881; of Plymouth, Pa.; died in Mercy Hospital, Wilkes-Barre, January 23, from embolism, complicating an acute appendicitis and ventral hernia at the site of a former operation on the gall-bladder, aged 59.

Charles Corfield McDowell, M.D. University of Maryland, Baltimore, 1874; a member of the American Medical Association and for many years attending physician to the Baltimore Orphan Asylum; died at his home in Baltimore, January 24, from heart disease, aged 60.

Joan A. Ospray, M.D. Northwestern University Woman's Medical School, Chicago, 1890; a member of the Illinois State Medical Society and formerly resident physician at the Norwegian Tabitha Hospital; died in Phoenix, Ariz., January 20, from tuberculosis, aged 48.

Charles W. Rennick, M.D. University Medical College of Kansas City, 1895; a member of the Kansas Medical Society; formerly of Garden City, Cherryvale and Gas City; died at his home near Wellington, from traumatic pneumonia, January 25, aged 41.

George Friebis, M.D. Jefferson Medical College, 1879; a member of the American Medical Association and a member of the staff of Wills Eye Hospital, Philadelphia; died suddenly at his home in that city, January 26, from heart disease, aged 65.

Leopold Burgheim, M.D. College of Physicians and Surgeons, New York City, 1879; a member of the American Medical Association and German Medical Society; died at his home in New York City, January 24, from heart disease, aged 68.

George C. Henkel, M.D. Medical College of Ohio, Cincinnati, 1860; a member of the Ohio State Medical Association and for nearly half a century a practitioner of Farmersville; died at the home of his daughter in Enon, O., January 25, aged 76.

Perry Hall Dudley, M.D. Hahnemann Medical College, Philadelphia, 1892; a member of the staff of the Children's and West Philadelphia Homeopathic Hospitals; died at the home of his sister in Philadelphia, January 17, from nephritis.

Lawrence A. Brumleve, M.D. St. Louis College of Physicians and Surgeons, 1901; a member of the Illinois State Medical Society; for two terms coroner of Effingham County, Ill.; died at his home in Teutopolis, January 19, aged 32.

William T. Taylor, M.D. College of Physicians and Surgeons, Keokuk, Ia., 1871; formerly editor of the *Philipsburg* (Kan.) *Plaindealer;* formerly of Oakland; died at his home in Topeka, January 20, from heart disease, aged 67.

Siegfroid Dandurand, M.D. Ecole de Médecine et de Chirurgie, Montreal, 1889; Victoria University, Cobourg, Ont., 1890; of Watertown, N. Y.; died in the Sisters' Hospital in that city, January 19, from pneumonia, aged 49.

Charles E. Downey, M.D. Northwestern University Medical School, Chicago, 1894; from 1896 to 1900 coroner of Will County, Ill.; died at the home of his parents in Joliet, January 21, from myocarditis, aged 40.

Horace Griffin Anderson, M.D. Rush Medical College, 1890; a member of the Illinois State Medical Society; died at his home in Chicago, January 2, from nephritis, a few days after a surgical operation, aged 52.

Jacob E. Powell, M.D. College of Physicians and Surgeons, Baltimore, 1890; from 1892 to 1894 coroner of Hancock County, Ohio; died at his home in Findlay, January 19, from broncho-pneumonia, aged 50.

Joseph Sager, M.D. Starling Medical College, Columbus, O., 1870; a member of the American Medical Association; a veteran of the Civil War; local surgeon at Celina, O., for the Cincinnati Western Railroad, and city health officer; died at his home January 22, from cerebral hemorrhage, aged 73.

Isaac Poole, M.D. Berkshire Medical College, Pittsfield, Mass., 1862; a surgeon in the Navy during the Civil War and the oldest practitioner of Evanston, Ill.; died at his home in that city, January 24, aged 74.

Thomas Herman Wilcox, M.D. University of Michigan, Ann Arbor, 1878; a retired practitioner of Brooklyn, N. Y.; died in that city, Nov. 14, 1911, as the result of a fall down an airshaft, aged 62.

Elias A. Keiser (license, Ohio, years of practice, 1896); a practitioner of Bryan for forty-five years and a member of the Ohio State Medical Association; died in Columbus, January 21, aged 73.

Orlando V. Shurtleff, M.D. Tulane University, New Orleans, 1855; for fifty years a practitioner of Brookhaven, Miss.; died at his home in Columbia, Miss., January 10, from senile debility, aged 78.

Edward W. Cornetet, M.D. University of Wooster, Cleveland, O., 1890; a member of the Ohio State Medical Association; died recently at his home in Piketon, from chronic nephritis, aged 45.

Blaine Empson, M.D. Kentucky University, Louisville, 1905; a member of the American Medical Association; died at his home in Dudleytown, Ind., January 10, from tuberculosis, aged 30.

William Benjamin Wiggins, M.D. University Medical College of Kansas City, Mo., 1909; of Kansas City; died at the home of his mother in Edna, Kan., recently, aged 28.

S. E. H. Gannon, M.D. Hahnemann Medical College, Chicago, 1879; of Matlock, Ia.; died at his home in Boyden, Ia., in November, 1911, from cerebral hemorrhage, aged 71.

Edwin J. Upton, M.D. Kentucky School of Medicine, Louisville, 1903; of Ericson, Neb.; died in St. Joseph's Hospital, Omaha, January 8, from heart disease, aged 43.

Harry Frederick Ryder, M.D. Cleveland (O.) Homeopathic Medical College, 1903; died at his home in Cleveland, January 12, from tuberculosis of the lungs, aged 31.

John A. Backus, M. D. Cleveland (Ohio) University of Medicine and Surgery, 1880; died at his home in Grand Rapids, Mich., January 18, from diabetes, aged 53.

Joseph Anderson Rogers, M.D. University of Nashville, Tenn., 1866; died suddenly at his home in Leeville, Tenn., January 11, from heart disease, aged 70.

Robert J. Bigelow, M.D. Jefferson Medical College, 1860; formerly of Ocoee, Florida; died at his home in Orlando, Fla., January 9, from senile debility, aged 76.

Harriet Avis Yergin, M.D. Hering Medical College, Chicago, 1908; of Sterling, Ill.; died in Mercy Hospital, Clinton, Ia., January 15, from pneumonia, aged 48.

Simon Cameron Struthers, M.D. Medical Chirurgical College of Philadelphia, 1903; died at his home in West Hazleton, Pa., January 8, from pneumonia, aged 34.

Gilbert John Dickson, M.D. Albany (N. Y.) Medical College, 1879; died at his home in Bovina Center, N. Y., January 10, from cerebral hemorrhage, aged 58.

Charles A. Dewey, M.D. Hahnemann Medical College, Chicago, 1881; died at his home in Chicago, January 23, from myocarditis, aged 55.

Isaac Lafayette Wall, M.D. University of Texas, Galveston, 1906; died at his home in White City, Tex., January 10, from pneumonia, aged 34.

William E. Shepherd, M.D. University of Louisville, Ky., 1875; died at his home in Taylorsville, Ky., January 2, from pneumonia, aged 60.

Simeon A. Thompson, M.D. Hospital College of Medicine, Louisville, 1903; died at his home near Louisville, January 12, aged 42.

George B. Chapman, M.D. Yale University, New Haven, Conn., 1875; died at his home in Dover Plains, N. Y., January 15, aged 71.

Arthur A. Craddock, M.D. Meharry Medical College, Nashville, Tenn., 1909; died at his home in St. Louis, January 13, aged 37.

L. B. Downs (license, Texas, years of practice, 1907); died at his home in Waco, January 9, from spinal meningitis, aged 58.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER MATTER TENDING TO AID INTELLIGENT PRESCRIBING AND TO OPPOSE MEDICAL FRAUD ON THE PUBLIC AND ON THE PROFESSION

STUART'S PLAS-TR-PADS

A Rupture Cure That is Exploited by Fake Analyses and is Advertised in Medical Journals

F. J. Stuart of St. Louis sells what he used to call "Adhesive Hernial Plaster Pads" but which he now calls "Adhesif Plas-tr-Pads." When sold under the earlier name, Stuart did business as "The Stuart Plaster Pad Company." His more recent trade name is the "Plapao Laboratories, Inc." The reason for this change of name is not known, but it occurred after some unenviable publicity had been given to the concern, due to a prosecution under the Food and Drugs act. The government's case against Stuart was dismissed in the lower court on a demurrer filed by the defendant. Stuart's contention seems to have been that his plaster pad was not misbranded, as the government charged, because he had not lied *on a label* but had confined his mendacity to *a circular* that was enclosed with the pad—and apparently the law does not prohibit falsehoods published elsewhere than on the label.

CLAIMS—OLD AND NEW

Before discussing the device itself it will be interesting to compare the claims made for it before the government commenced suit, with those made after suit had been brought. The arrangement in parallel columns of the assertions made before and after prosecution illustrates what a power for comparative righteousness is wielded by the Food and Drugs Act. The words and phrases that have been modified are put in italics:

OLD	NEW
"Stuart's Adhesive Plaster-Pads *Cure Rupture*."	"Stuart's Plas-tr-Pads *Give Quick and Permanent Relief*."
" . . . the Plaster-Pads will *cure almost every case* . . ."	"The Plas-tr-Pads will *do all we* claim for them . . . "
"Stuart's Adhesive Hernial Plaster-Pads *cure*' while you work and while you sleep."	"Stuart's Adhesif Plas-tr-Pads *work* while you work and while you sleep."
"They are made to *cure* rupture . . . and that is what every ruptured sufferer wants—a *cure* and not a mechanical support."	[Omitted entirely in new booklet.—ED.]
"This is the reason why the Plaster-Pads *effect a cure* so quickly."	"This is the reason why Stuart's Plas-tr-Pads *produce results* so quickly."
"They are as *far ahead of* the truss as the great ocean steamships of to-day are *ahead of* the old-time sailing vessels."	"They are as *different from* the truss as the great ocean steamships of to-day are *different* from the old-time sailing vessels . . . "
"Within this pad is a reservoir or container, which is filled with *the essential curing medicine* . . . "	"Within this pad is a reservoir or medicine container which is filled with an *absorbent astringent medication*."
" . . . they *hold and cure rupture* . . . "	" . . . . they *relieve ruptured sufferers from the dangerous misconstructed truss*."
"The question that I am discussing is '*How to Get Cured*'."	"The question that I am discussing is '*How to Get Rid of the* Truss' . . . . "
"I had the opportunity to be *cured* offered me . . . "	"I had the opportunity to be *rid of the truss* offered me . . . "
"If you want to be *cured*, do your part and order Stuart's Adhesive Hernial Plaster-Pads."	"If you want *relief*, do your part and order Stuart's Adhesif Plas-tr-Pads."

A study of the foregoing demonstrates once more that the Food and Drugs Act has been responsible for the passing of the "lie direct" which has given place to the lie by inference. The methods of bringing the "plaster pads" to the notice of the public are those common to medical fakers in general. That is to say, Stuart uses such newspapers and magazines as will accept his advertisements and he also uses those medical journals that are not above taking money for this sort of thing. The wording of the advertisements in the newspapers differs but little from that which appears in medical journals.

ADVERTISING IN MEDICAL JOURNALS

The difference lies chiefly in the style of type and general appearance of the "copy." In the *Police Gazette*, for instance, we find the advertisement headed in large type "RUPTURE CURED"; in the medical journals, the heading runs "DOCTOR! DON'T FIT A TRUSS." The medical journal advertisements, however, are not distinguished by any particular conservatism, for we find such statements as this:

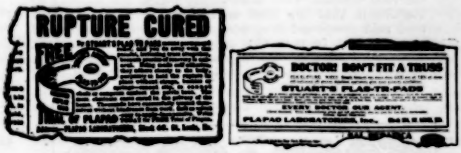


Fig. 1.—Photographic reproductions of advertisements of Stuart's Plas-tr-Pads. The one on the left is from the *Police Gazette*; that on the right, from a leading medical weekly.

"Have CURED the most OBSTINATE cases in a few days."

Apparently there are publishers of medical journals who see no outrageous exaggeration in the statement just given and who really believe that the "most obstinate" cases of hernia can be "cured in a few days" by means of a piece of adhesive plaster. At any rate, four or five medical journals of more or less prominence are, or have been, carrying the Stuart Plaster Pad advertisements. Believing that when the publishers have had their attention called to the viciousness of this device, they will delete these advertisements from their pages, we shall not publish, at this time, a list of those journals that carry the Plas-tr-Pad advertisements.

BUYING A MAILING LIST

Apparently, Stuart does not expect the physicians to whom he appeals through these medical journals to fit these pieces of adhesive plaster to patients, although in a letter that is sent to those who answer such advertisements a discount of twenty-five cents on the dollar is offered. The real reason, however, for getting in touch with a certain class of physicians appears in the circular that the doctor receives telling him about "Our Plan for a Free Fever Thermometer." The physician is asked to send in the names and "complete and correct addresses" of ten people "positively known to be ruptured." For the mailing list thus furnished (and twelve cents in cash), the doctor receives a free thermometer. A thermometer seems rather a cheap bribe to offer a professional man for furnishing confidential information regarding the physical disability of people who have presumably entrusted him with their secrets. But the birthright of professional decency would doubtless not be highly valued by those who would thus become accessories before the fact in the furtherance of quackery.

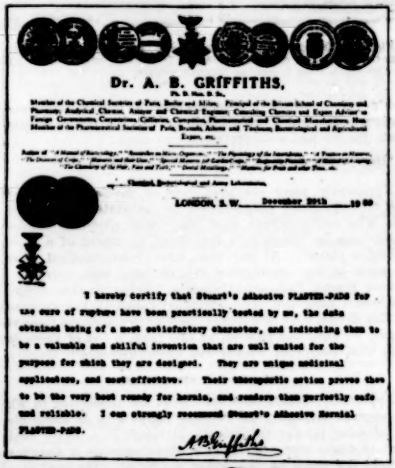
THE PADS THEMSELVES

What are Stuart's Adhesive Plaster Pads? What is this wonderful device that, according to its exploiters, does in a few days what some of the most skilful physicians and surgeons are unable to accomplish in weeks or even months? It is, to all intents and purposes, a strip of adhesive plaster with a small pad containing a simple ointment. The padded portion of the plaster is placed over the hernial opening and the plaster itself applied to the skin. Then, if we are to believe the Plapao Laboratories, Inc.—which we are not—the medicine will "contract, strengthen and restore" the "stretched out and weakened muscles" and the hernia is cured! It is

not necessary to tell physicians that this "medicine" will do nothing of the sort.

It would probably have been difficult to sell, even to the most gullible, a strip of adhesive plaster at $2 and more a strip. By using a simple ointment of secret composition and "playing it up" as the essential element in the "cure," it is not so difficult to humbug the public; for the mysterious always appeals to the uninformed. The government, in its report on this fake, had the following to say about the ointment—which is sold under the proprietary name "Plapao"—to which such marvelous properties are ascribed:

> "Said plaster pad and the compound drug contained in the cone thereon, were misbranded within the meaning of the act in that the label on the pad in question stated that said compound drug possessed qualities which would cure or tend to cure the disease of hernia or rupture, when as a matter of fact said compound drug did not possess such qualities, the statements on said label being thus false and misleading."



Dr. A. B. GRIFFITHS,

Ph. D. Hon. D. Sc.

Member of the Chemical Societies of Paris, Berlin and Milan. Principal of the Brixton School of Chemistry and Pharmacy. Analytical Chemist, Assayer and Chemical Engineer. Consulting Chemist and Expert Adviser to Foreign Governments, Corporations, Companies, Companies, Commercial and Chemical Manufacturers. Hon. Member of the Pharmaceutical Societies of Paris, Brussels, Athens and Toulouse. Bacteriological and Agricultural Expert, etc.

Author of "A Manual of Bacteriology," "Researches on Micro-Organisms," "The Physiology of the Invertebrates," "A Treatise on Diatoms," "The Diseases of Crops," "Diseases of Plant Life," "Special Memoirs of Cambrian Fungi," "Micro-Organisms of Atmospheric Air," "The Cultivation of the Vine, Past and Future," "Dental Bacteriology," "Manures, Past and Future," etc.

Chemical, Bacteriological and Assay Laboratories,

LONDON, S. W. December 20th 1910

I hereby certify that Stuart's Adhesive PLASTER-PADS for the cure of rupture have been practically tested by me, the data obtained being of a most satisfactory character, and indicating them to be a valuable and skilful invention that are well suited for the purpose for which they are designed. They are unique medicinal appliances, and most effective. Their therapeutic action proves them to be the very best remedy for hernia, and renders them perfectly safe and reliable. I can strongly recommend Stuart's Adhesive Hernial PLASTER-PADS.

A. B. Griffiths

A home for a baby boy at £200 a year in exile to extract fees of 20s. from applicants.

Dr. A. B. GRIFFITHS, 13R, Brixton-road, London.—Gives analyses and certificates to quack remedies for a fee of a guinea. Has a long string of foreign "honours" and American "degrees" attached to his name, and was at one time "President" of the egregious Society of Science, Letters and Art.

Hamilton.—The alias of one Frederick Roberts, a swindler who

Fig. 2.—The upper picture is a photographic reproduction of Dr. A. B. Griffith's "analysis"; the lower picture is reproduced from part of a page in *Truth*'s "Cautionary List". Evidently, some analysts are without honor in their own country!

While the government lost its case in the lower court on a technicality, the assertions in the government chemists' report that the thing was a fraud are as true to-day as they were when they were written. A sample of this ointment was examined in the Association's laboratory and the chemists reported as follows:

LABORATORY REPORT

> "A specimen of Stuart's Plapao for Rupture consisting of a dark brown ointment, was found to be essentially a lanolin ointment containing tannic acid and perfumed with oil of pine needles, or some oil with a similar odor and colored dark brown. Neither potent alkaloids nor compounds of metals such as arsenic, mercury, aluminum or zinc could be detected."

The whole tenor of the Plapao concern's advertising matter is to the effect that the plaster pads will cure rupture—even the "most obstinate cases"—and make a truss entirely unnecessary; yet when Stuart applied for a patent on his device, he described it, not as a cure, but as a "hernia support" that was to be used alone *"or in combination with a truss."* In fact, in some of his advertising matter the following statement appears:

> "If so desired they can be worn in combination with any truss, *and in severe cases this combination is especially adaptable."* [Italics ours.—ED.]

Nor is this all. That the poor victim of hernia may be caught both "coming" and "going" the Plapao concern, after exhausting every effort to sell its strips of adhesive plaster, finally sends the prospective patient a price list of trusses, suspensories, "uterine supporters," etc., which it has for sale. In other words, while Stuart can find no language strong enough to condemn trusses, he is perfectly willing to sell trusses if by no other means can he separate the sufferer from his money. The truss price list accompanies the last of a long series of follow-up letters.

ANALYSES AND TESTIMONIALS

Of course, the Plapao concern has testimonials. More than this, it has what purport to be chemical analyses of the ointment used in the pads. The "analyses" give no indication of the composition of the stuff—the point on which a chemist is competent to give an opinion—but do discuss its therapeutic value, a question altogether out of the province of chemical analysis. One of these analyses is from Delta E. Combs, who calls himself a "consulting and analytical" chemist. We understand that Mr. Combs is also president, treasurer and manager of the Combs Chemical Company of St. Louis, a concern that sells "ethical proprietaries" for the cure of alcoholism, the drug habit, the tobacco habit, sexual neurasthenia, etc.

Another "chemist," whose analysis is published, is "Dr." A. B. Griffiths, London, England. The Plapao people call particular attention to "Dr." Griffiths' analysis which they reproduce in facsimile. Griffiths' letterhead has pictures of a number of "medals" which, according to the Plapao Laboratories, indicates "that his reputation is world-wide." Some of our readers will remember that we have called attention to "Dr." Griffiths before. He is a gentleman who furnishes "analyses" for various classes of medical fakers, the charge being $5 for each "analysis."

His name very properly appears in the "Cautionary List" put out by London *Truth*.

A widely advertised obesity cure, a cure for baldness and a fake cure for alcoholism, all American humbugs, also publish "analyses" from Griffiths.

A few of the testimonials reported to come from individuals who had been cured by Stuart's Plaster Pads, were investigated. Letters were written to physicians in the towns in which such individuals lived. The following is the result of the investigation, the initials being those of the persons who had testified to their "cure":

G. W.: Rupture now "as bad as it ever was."
L. C. J.: Claims to be cured; could not be verified, as no examination was made.
W. M.: Not cured; umbilical rupture; imperfectly closed.
M. W. H.: Not cured; still wears a support.
W. E. B.: No information obtainable.
J. H. W.: No information obtainable.
J. M.: Claims to be cured; could not be verified, as no examination was made.
J. S. S.: Still ruptured.
A. J. M.: No information obtainable.

This represents names taken at random from a list published by the "plaster pad" concern. If this is the best showing that can be made for the "adhesive plaster treatment" of hernia coming from individuals whose names are published as striking examples of the success of the treatment, what would be the result if it were possible to write to the hundreds of

victims whose names will never be made public but who have parted with their money for this worthless device?

"SCARE" METHODS

Like all medical fakes, the sale for this is stimulated by attempts to frighten the susceptible. The dangers and frequency of strangulation in hernia are harped on throughout the advertising matter and hair-raising pictures of people in deadly peril are used to play still more on the fears of those suffering from rupture. In one of the circulars there is a faked reproduction of an envelope sent out by the Stuart concern and returned to it with the inscription "Returned to writer: Dead" stamped on it.

PRIVATE AND CONFIDENTIAL

One more point connected with this concern and we are through. The following statements appear in the advertising matter sent out by the plaster pad company:

"The utmost privacy is always maintained in all our correspondence and business relations . . . "

"No one need hesitate to write us fully and completely regarding their case, as all letters are held in strictest confidence."

In spite of this statement, we find advertised for sale by one of the largest letter brokers in the country, listed under "Rupture Letters" no fewer than 17,566 letters of the Stuart Plaster Pad Company. Privacy indeed!

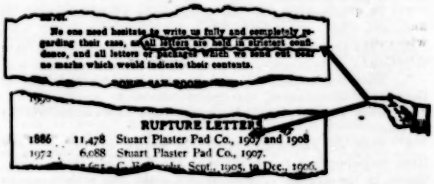

No one need hesitate to write us fully and completely regarding their case, as all letters are held in strictest confidence, and all letters or packages which we send out bear no marks which would indicate their contents.
RUPTURE LETTERS
1886 11,478 Stuart Plaster Pad Co., 1907 and 1908
1972 6,088 Stuart Plaster Pad Co., 1907.

Fig. 3.—Photographic reproductions (1) of Stuart's advertising matter, where the assertion is made that "all letters are held in strictest confidence"; (2) of a portion of a pricelist issued by a firm that makes a business of buying and selling letters that have been sent in to mail-order medical fakes. It will be noticed that this firm has more than 17,000 Stuart Plaster Pad Co.'s letters for sale. Confidential, indeed!

To sum up, we have in the Plapao Laboratories, Inc., a concern that promises to cure rupture by means of a piece of adhesive plaster and a little ointment. The device is exploited both directly to the public by newspapers and indirectly to the public through the instrumentality of medical journals and of physicians who will sell the names of sufferers of hernia for the price of a cheap thermometer. Purchasers are obtained through fake analyses and misleading testimonials. Finally, individuals who have been unwise enough to answer Stuart's advertisements or who have been unfortunate enough to have their names sent in by a local physician, have had their names sold to letter brokers to be bought by any person, anywhere, who is willing to pay the few cents necessary to obtain them.

A Testimonial.—The following letter was received by a maker of liniment at Carmine, Tex., according to the Chicago *Tribune*: "Mrs. Hattie Louis says her sister have ben sick 6 weaks and 5 doctors treated her but fail to do her any good then she went to the horse pittle and the doctors claim there they could not reach her case. She wer swelling so she could not lie down. She would hafter be prop up in bed and could bairly sit down and she says the first time she was treated with your liniment she felt a change and now she are doing fine and the swelling are all gone and she are able to do all the cooking in 9 days time which her mother had gave her up to die."

Correspondence

Precocious Children.

To the Editor:—In THE JOURNAL, Jan. 27, p. 277, I note an editorial on precocious children as judged by Professor O'Shea in a recent issue of *Science*. As Professor O'Shea takes the liberty of speaking of my little daughter, Winifred Sackville Stoner, Jr., as an example of a precocious child, I consider it my duty to Winifred as well as to other children to reply to the professor's arguments.

As a great lover of children and an enemy to the present system of public school training, which I believe makes boy and girl automatons, I have been earnestly studying child-training for the past ten years. From these observations, I cannot agree with Professor O'Shea that precocious children do not observe people and Nature as much as children untrained in book knowledge. What are good books but store houses of knowledge gathered by great minds after long periods of research on various subjects? Children who are trained to love these best of friends from babyhood will love them through life and thus have friends that will never desert them. Besides, I have noticed, contrary to Professor O'Shea's observations, that children who read books telling of Nature's realms find much more enjoyment in looking at her works than those who see her beauties through untrained eyes.

While taking a party of children through a beautiful wood last summer, I could not help noticing, with pride, how much more enjoyment Winifred got out of her walk than the other children who knew nothing of the leaves, roots, etc., of the various trees. Everything added to one's storehouse of knowledge, even in babyhood, is an open sesame to many pleasures. As a mere baby, Winifred found far more pleasure in walking along the sea shore and talking of the formations of shells than the ordinary child who saw the shells as an ostrich sees them—simply because of their brightness.

I agree with Professor O'Shea in believing that children of 2 years who can read Milton, do not know the sense of what they are reading. In studying the ordinary child trained by modern public school reading methods, I have often found this to be true of children up to the age of 14. Many of these children are also poor spellers. Recently in a test given in the New York high schools out of 1,000 pupils 800 could not spell the simplest words correctly. This is the result of sounding words which have no meaning to a child's ear.

Winifred, I am glad to say, was not taught by this method. She knew how to spell each word and understood its meaning when she used it in reading, the true thought conveyor. She could read when less than 2 years of age, but not Milton. Her first reading book was the simple childish classic, "Peter Rabbit," which the child thoroughly understood and enjoyed.

Despite the belief of many literary people that Winifred is a genius, I do not wish to see her so classed. There is a narrow line between the genius and the fool. Many times the so-called genius is a lopsided creature who shines in one direction, but knows nothing of the great joys derived from a general knowledge of life.

Winifred, who at the age of 9 years can express her thoughts in a number of languages, has published three books and can talk intelligently on mythology, literature, history, geography, art, etc., is only a simple child who loves her playmates and dolls as much as her books. She delights in romping with children of her own age, but if left alone she is never lonely because she has her book-friends or her store of knowledge to carry her to new worlds. She is as full of energy as a race horse, but this energy has been directed into proper channels and does not work havoc as is often the case with children bubbling over with life. Early training through play has made the pathway of knowledge one of joy to Winifred. It has also given her great powers of concentration and observation. With these two seeds implanted early in any child's mind, I believe that child will succeed in some particular line. Every child has a talent. It is the duty of parents to discover this talent and nourish it so that it will bear good fruit.

As Winifred early showed a love of verse, I have striven to develop this love by leading her to the storehouses of great poets. She has never been compelled to study, but seeks knowledge only when she is hungry for it. Therefore her brain is never taxed, for it is only when interest flags that one is injured in thinking.

This child is such a happy, healthy youngster, who finds so much enjoyment in exploring realms very often hated by children, but which she calls her good giants Matematiko and Geografio, that I yearn to see all children finding the paths to knowledge as veritable playgrounds.

For the sake of our children to whom we owe everything (having brought them into the world without their asking) let me plead with parents not to take the advice of a few professors who believe in allowing children to grow as weeds until the sixth or eighth year. "As the twig bendeth so the tree groweth." One cannot begin too early in training the child's mind, which, like wax, is very impressionable. We should teach our baby beautiful thoughts while he is yet in the cradle. Early impressions are lasting. The old man forgets things which he learned in the strength of his manhood, but when the evening of life creeps upon him he goes back to the thoughts of his youth. Then, how grateful will he be for the storehouse of wealth you have given him.

WINIFRED SACKVILLE STONER, Pittsburgh, Pa.

The Management of Normal Labor.

To the Editor:—I should feel that I had neglected my duty if I failed to comment on an article on this subject in THE JOURNAL, January 27, p. 274. I am sure, in the main, that the treatment as laid down in this article does not coincide with the advice and teachings of those who are giving obstetrics more than a passing thought. Had the author but referred to any modern text-book on obstetrics, he would have discovered that there had been just as great advancement in this line of medicine as in the other branches and that much of the advice given by him belongs to a period antedating antiseptic surgery. I am surprised that this article should appear in THE JOURNAL of the American Medical Association, and more so that the article was given such a prominent position. It does not seem necessary that I should point out the errors, because they are plain to anyone keeping in touch with modern medical literature; and I am sure, had the article been properly edited, it would not have appeared in our valuable journal.

C. E. PADDOCK, Chicago.

To the Editor:—The article on normal labor, in a recent issue, was very clear and concise, but in one respect it surprised me extremely.

The subject of rubber gloves was omitted. A description of obstetric work without mention of rubber gloves is rather startling. If the author does not approve of gloves, and has other means of preparing the hands, why does he not mention the fact? Or does he take for granted that we all wear gloves, as a matter of course? Evidently not, as he advises us to rupture the membranes with our finger-nails.

Surely boiling water is always to be had. Therefore there can be no easier and quicker way of eliminating infection than using boiled gloves.

A clear understanding on this subject would surely be valuable to the many who were interested and instructed by the mentioned article.

W. C. GAYLER, Saint Louis.

To the Editor:—The general character of THE JOURNAL is so high that it comes to your readers as a shock to find an article in its columns so much behind the times, and so full of errors that it would be a disgrace to a proprietary advertising sheet. Such a shock I experienced in reading the article on "The Management of Normal Labor."

As a guide to the management of labor for the general practitioner it is incomplete, as it omits very important directions and it gives advice quite contrary to all the modern teaching. Without going into a comprehensive criticism I shall mention only a few things.

Omissions: preparatory enema; satisfactory cleaning of the patient; dressing of patient; external examination of patient; measurement of pelvis; use of gloves.

Objectionable Advice: frequent internal examination; pushing cervix over the head; anointing the perineum and seizing placenta in the vagina; manual removal of placenta in forty-five minutes.

Questionable Advice: use of chloroform instead of ether; interference with cord around neck; delay thirty minutes in cutting cord; routine use of ergot.

The article is not a credit to THE JOURNAL.

C. S. BACON, Chicago.

To the Editor:—The parody on obstetric technic published in THE JOURNAL, Jan. 27, was, no doubt, given to show how badly the thing could be done. It seems to me, however, that the mission of THE JOURNAL would be better fulfilled by giving a clean-cut, modern technic which might serve as an example, rather than one which pulls the average practitioner down to the level of the illiterate midwife.

Is it forgotten: 1. That the vulva is shaved and scrubbed with soap and water, as well as with an antiseptic solution?

2. That rubber gloves and not petrolatum are used in the twentieth century?

3. That the Kelly pad is not yet out of date?

4. That continual manipulations during the second stage are not good practice?

5. That petrolatum on the perineum is about as useful as a snowball in——Panama?

6. That the cut cord should immediately be protected from infection?

7. That the cord should not be pulled on when delivering the placenta?

8. That a prophylactic for ophthalmia neonatorum should be used?

9. That an abdominal binder is needed by the mother? [Our correspondent has overlooked the fact that this is mentioned in the article. Please do not make the article out to be any worse than it is.—ED.]

If I am wrong in believing asepsis to be the sine qua non of obstetric practice, and that the technic given in THE JOURNAL is as poor a specimen as could well be devised by a modern medical journal, then the sooner I know it the better.

ARCHIBALD E. CHACE, M. D., New York.

To the Editor:—There appeared an article in THE JOURNAL describing the conduct of a case of normal labor, which advocated certain procedures to be practiced by the attending physician. Some of them, if the conduct of a case of labor is to be regarded as a surgical procedure, which it most certainly is, are deserving of severe criticism. After sterilization of the hands the following is advocated on part of the physician: "Having lubricated the index and middle-fingers of his right hand with some sterile lubricant, such as petrolatum, the physician inserts these fingers into the vagina and examines the cervix uteri to determine whether it is dilated, whether the pains affect the muscular fibers of the cervix, what part of the child is presenting, if the head is presenting, to determine if possible the position in which it lies, and whether any part of the placenta is attached to the lower segment of the uterus. Incidentally he learns also the condition of the perineum, whether it is rigid, dilatable or relaxed; of the vagina, whether it is moist or dry; of the pelvic walls, whether they are broad or narrow."

Why anybody should advocate the smearing of the examining finger, or fingers, with a mess of petrolatum, which is rendered sterile only with great difficulty and is kept so with even more trouble, is beyond comprehension. It is certainly a reversion to antiquated methods of technic. Surely the fingers of a hand covered with a sterile glove can be readily made insertible by the application of sterile green-

soap tincture. Not a word is said regarding the physician attempting to learn the progress of labor by external examination, a method of great value, used by modern obstetric surgeons a great deal, and without the danger of sepsis. The paragraph also presupposes, by its own words, that the attendant is in utter and absolute ignorance of the position and presentation of the child and the pelvic measurements of the mother, something that he should be well informed of before his call to active service. The advice is also given that "the perineum should be anointed with petrolatum or some unctuous substance so as to soften it and facilitate dilatation." Such advice is what one might look for from a midwife or neighborhood granny, not from someone who is describing the technic of labor in a period of modern surgery, and the man who conducts his cases along the lines indicated by the writer of this article should be congratulated if his patients escape with their lives.

It is not hard to understand why men get into trouble, have sepsis, dead babies, a dead or mutilated mother, if obstetrics is practiced along the lines of the above-mentioned article. The modern obstetrician is a surgically trained man and it certainly goes against the rudiments of the art when some of the methods mentioned above are advocated in a periodical of the class THE JOURNAL of the A. M. A. is in.

FRANK H. JACKSON, Houlton, Me.

[COMMENT: Many of the above criticisms are just and the letters are welcomed, for we are always glad to have errors pointed out, especially in an article on so important a subject. We intend to print nothing in THE JOURNAL that is not reliable and the occurrence criticized above is one of those unfortunate circumstances when something "gets by" the editor.

In the second place, the letters indicate the very gratifying fact that our readers insist on a high standard and will hold us to it. The highest standard is our ambition.

Third, these criticisms bring out prominently the great advance that has been made in obstetric technic in the last decade or two. It is worth while for our readers to be impressed with the advances in this field, even at the expense of our having to admit an oversight—or, to be more precise, a lack of oversight. In justice to the author of the article, however, it should be remembered that he had in mind the country practitioner and the exigencies of country practice, and, from this point of view, there may be ground for difference of opinion as to some of the points raised by our correspondents, but we will not confuse the issue by defending any particular detail. The important point is that the introduction of asepsis in surgery has revolutionized obstetrics and has rendered many of the manipulations, formerly held in high honor, useless and even dangerously objectionable. It is high time that the general practitioner should realize the necessity of being up-to-date in his obstetric work. While the majority of normal labors may terminate successfully with ordinary precautions, it is important for the obstetrician to feel that the life and the future health and happiness of the patient are in his hands, that aseptic methods in obstetric procedures are as important as in a surgical operation, and that any precaution which modern science may suggest to enhance the safety of childbirth is worthy of adoption.—ED.]

The Army Canteen

To the Editor:—There have been a number of replies elicited by the petition of the 279 physicians to Congress asking for the passage of the Bartholdt Bill restoring the canteen. A number of the arguments have been of such a character that it would be needless to attempt to refute them. I desire, however, to call attention very briefly to the following points:

In Colonel Maus' letter (THE JOURNAL A. M. A., Jan. 13, 1912, p. 130) objection is made to the petition of the 279 physicians on the ground that we "know little of the sociologic condition of the soldier and his environment" and we are advised that "the shoemaker should stick to his last." I beg to quote three witnesses who do know the sociologic conditions and environment of the soldier quite as well as Colonel Maus. They are, first, General Wood, the Chief-of-Staff of the Army, whose entire life has been spent in the military service of his country. He says: "There is no question whatever in my mind or in the minds of the great majority of officers of experience in the service that the abolition of the canteen has done much to increase immorality and to relax the bonds of discipline in the Army. The intentions of those who were active in its abolition were undoubtedly good, but their ignorance of the actual situation prevailing was profound. It is difficult for anyone who was familiar with the conditions which existed in the Army under the canteen to discuss with patience the question of its abolition. The abolition of the canteen has been one of the strongest influences against discipline which we have had to combat, and I earnestly urge on you its restoration, being convinced that such restoration is in the interests of the morality and discipline of the Army."

My second witness is General Torney, Surgeon-General of the United States Army, who also has spent his life in the military service of his country. His letter was published in THE JOURNAL A. M. A. Jan. 20, 1912, p. 214. He calls special attention to the fact that the increase of venereal diseases, which Colonel Maus attributed to the institution of the physical examination of every soldier at stated intervals "took its abrupt and enormous rise ten years before the physical examinations began to be held at any considerable number of posts in the United States."

My third witness is a petition signed by nearly 2,400 army women, headed by Mrs. Leonard Wood and Mrs. Frederick D. Grant, and others, sisters, mothers, wives, and daughters of army men, many of whom have spent a large part of their lives at army posts and are thoroughly familiar with the sociologic condition and environment of the soldier, who say: "Having seen and felt the effects of the act of Feb. 2, 1901, prohibiting the sale on military reservations of beer and light wines; realizing, from an experience extending over ten years, that the effect of that act has been injurious to discipline, harmful to morality, and conducive to intemperance; having deeply at heart the truest interests of the Army, and therefore of the nation; believing that, from our close relation and intimate association with our soldiers, we are better judges of the effects on them of such legislation than those who look in from without or who act on mere theory or generalization; we, the mothers, daughters, sisters, and wives of officers and enlisted men, do respectfully urge and earnestly request, in the interest of discipline, morality, and temperance, the repeal of the said act."

On these three witnesses I am willing to rest our case. Per contra, I beg to call attention to the fact that so far as I know of the entire Medical Corps of the Army, Colonel Maus is the only one who has publicly upheld the opposite view.

W. W. KEEN, Philadelphia.

Importance of Public Enlightenment on Venereal Disease.—In the matter of the hysterical attitude toward venereal diseases, there is a wheel within a wheel, writes Samuel Hopkins Adams, in the *Jour. Am. Pub. Health Assn.* The idea that of the two diseases, syphilis is incalculably the worse, and gonorrhea rather unimportant, is a fallacy of the widest acceptation. In fact there does not inhere in leprosy itself more of the terror of a word than in syphilis. Yet, by and large, and with particular reference to innocent wives infected by their husbands, it is certain that as much damage is inflicted on the race by the little-considered infection as by the superstitiously dreaded affliction. Syphilis can now be, in many cases, absolutely cured. But no man knows when gonorrhea, apparently eradicated, may reassert itself to the wreckage of the patient's life and the health of those dearest to him. To reconstruct the hysterical fear of syphilis into the just and logical dread due equally to both the sexual diseases, is perhaps the most vital problem of modern hygienic education. It all resolves itself into a question of patient, unremitting instruction of the public, through press, platform, pulpit and schools. Nowhere as in hygiene is that public capacity so needed which Bacon has set down as one part of wisdom, the capacity to learn not from the names of things, but from things themselves.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

SERUM IN CEREBROSPINAL MENINGITIS

To the Editor:—1. Where can I get serum for the treatment of cerebrospinal meningitis?

2. Please state the method of using it.

H. P. CHESMORE, M.D., Princeton, Mo.

ANSWER.—1. The serum is furnished by the Rockefeller Institute for Medical Research and is also for sale by H. K. Mulford Co., and a similar serum can be obtained from Victor Koechl & Co. (See New and Nonofficial Remedies, Ed. 1911, p. 187; Ed. 1912, p. 204.)

2. The serum is injected into the spinal canal after the removal of an equal quantity of cerebrospinal fluid. For further details see THE JOURNAL, Sept. 2, 1911, p. 823. Articles by F. S. Churchill (THE JOURNAL, July 24, 1908, p. 21, and Sept. 11, 1909, p. 841) may also be referred to for the technic. In some cases the serum has been injected into the ventricles of the brain (See S. R. Benedict, THE JOURNAL, Feb. 4, 1911, p. 346).

THERAPEUTIC VALUE OF BALSAM OF TOLU

To the Editor:—For years I have prescribed, with excellent results, in cases of chronic bronchitis, the following:

℞	gm. or c.c.
Terebinth. venetian.	
Picis liquid. aā	2 | 3ss
Bals. tolutan.	6 | 3jss
Sodii benzoat. q. s.	

Ft. pil. No. 80.

Can we safely dispense with the balsam of tolu as being inert, or is it of much use as an adjuvant?

D. A. ZWIGTMAN, Niles, Mich.

ANSWER.—Balsam of tolu contains cinnamic and benzoic acid. The action it has would be very similar to that of sodium benzoate. In the prescription quoted, the quantity of balsam of tolu prescribed is slightly over 1 grain to the pill, and as the average dose of balsam of tolu is 1 gm., or 15 grains, it is evident that the amount of tolu in this prescription can have very little therapeutic effect and might be omitted without detriment. From the composition of tolu, it does not seem warrantable to state that it has no therapeutic value, and its agreeable odor renders it a valuable addition to many expectorant mixtures.

VLEMINCKX' SOLUTION

To the Editor:—In several works on dermatology Vleminckx' solution is often referred to, but in none have I been able to find a formula. Please publish the formula.

M. V. GODBEY, Charleston, W. Va.

ANSWER.—The formula is:

℞	Gm. or c.c.
Calcis 3ss	or 16
Sulphur. sublim. ..... ʒi	32
Aq. dest. ..... ʒx	320

M. Coque ad ʒvj [200] deinde filtra.

PROTEID PERCENTAGE IN MILK AGAIN

To the Editor:—The inquiry of DR. C. Mayfield in THE JOURNAL for January 27, p. 297, and the answer regarding the proteid percentage in milk might well be amended by reference to the test given by Boggs in the *Bulletin of Johns Hopkins Hospital* for October, 1906. This is an easier test than Woodward's and its accuracy has been proved by careful experiment. An ordinary Esbach test-tube and a 300 c.c. solution are the only things needed. The test is made as follows:

(The reagent: 25 c.c. phosphotungstic acid added to 125 c.c. aq. dest.; mix thoroughly and add 25 c.c. conc. HCl, plus 100 c.c. aq. dest.; keep in a dark bottle.)

Human milk should be diluted 1:10 and cow's milk 1:20; in the Esbach tube put in milk to the mark "U" and the reagent to the mark "R"; reckon from the bottom of the meniscus. Next, cork the tube and invert slowly a few times.

Put in the rack for twenty-four hours and a fine precipitate will form at the bottom; if the dilution was 1:10, read percentage directly from scale; if 1:20, multiply by two.

The precipitate of proteid is much finer than that found in the Esbach test for albumin in the urine and the test is very easily made.

ALEXANDER C. SOPER, Jr., Chicago.

The Public Service

Medical Department, U. S. Army

Changes during the week ended Feb. 3, 1912.

Ingalls, R. E., dental surgeon, January 17, reports for temporary duty at Boise Barracks, Idaho. Left from temporary duty at Fort Missoula, Mont., January 15.

Each of the following named officers is relieved from duty at the army medical school and in the medical reserve corps and will proceed to his home, and on arrival there will report by telegraph to the adjutant general of the Army: First Lieutenants Leo B. Allen, Sidney M. Bunker, William G. Gill, Charles P. Kennedy, William P. J. Ruddy and Frank Suggs.

The following named medical officers on arrival at San Francisco are ordered to duty at the posts named:

Woodruff, Charles E., lieut. col., medical corps, sanitary inspector, western division, relieving Lieut. Col. Henry S. T. Harris, who will proceed to Fort D. A. Russell, Wyo., for duty.
Purviance, William E., major, medical corps, Fort McDowell, Cal.
McCulloch, Champe C., Jr., major, Fort D. A. Russell, Wyo.
Truby, Albert E., major, Fort Jay, N. Y., relieving Persons, Elbert E., major, to Field Hospital and Ambulance Co. No. 2, presidio of San Francisco, relieving Bevans, James L., captain, to Fort Mason, Cal. Also attending surgeon, San Francisco.
Huntington, Philip W., captain, Fort Totten, N. Y.
McLellan, George H., lieut., to Fort McDowell, Cal., relieving Johnson, Howard H., captain, to Walter Reed General Hospital, Takoma Park, D. C.
Mueller, Armin, lieut., Fort Des Moines, Iowa.
Fronk, Clarence E., lieut., Fort Benjamin Harrison, Ind.
Watkins, Victor E., M.R.C., Fort Sam Houston, Tex.
Henry, Ziba L., M.R.C., Fort Sill, Okla.
Freeland, H. L., M.R.C., Fort Benjamin Harrison, Ind.
Conzelman, Fred J., M.R.C., Fort Mott, N. J., relieving MacDonald, Charles E., M.R.C., who on being thus relieved will proceed to his home. Lieutenant MacDonald will stand relieved from active duty, to take effect May 15, 1912.
Drake, Percy G., M.R.C., Fort McKinley, Me.
Rutherford, Henry H., major, January 27, granted one month's leave of absence with permission to apply for one month extension.
Johnstone, E. K., M.R.C., January 25, relieved from duty at Fort Shafter and ordered to Schofield Barracks, H. T., for duty.
Raymond, T. U., lieut. col., January 27, relieved from duty in the Philippines division July 15 and ordered on arrival at San Francisco to report to the adjutant general of the Army for orders.
Thomason, Henry D., captain, January 27, orders to the army field service school, Fort Leavenworth, Kan., revoked.
Eckels, L. S., lieut., January 30, ordered to Fort Andrews, Mass., for temporary duty.
Richards, R. L., captain, January 31, granted thirty days' leave.
Waring, J. B. H., lieut., February 1, granted thirty days' leave of absence, to take effect on expiration of present sick leave.
Persons, E. E., major, February 1, is detailed to enter the army field service school, Fort Leavenworth, Kan.

Medical Corps, U. S. Navy

Changes for the week ended Feb. 3, 1912.

Stibbens, F. H., P. A. surgeon, detached from the naval training station, San Francisco, and ordered to the *St. Louis*.
Charlton, C. F., and Davis, R. G., A. surgeons, appointed acting assistant surgeons from Jan. 26, 1912.
Murphy, J. F., P. A. surgeon, detached from the naval hospital, Las Animas, Colo., and ordered to Washington, D. C., for examination for promotion and to await orders.
Garrison, H. A., P. A. surgeon, ordered to the navy recruiting station, Cincinnati.
Duhigg, J. T., asst. surgeon, detached from the navy recruiting station, Cincinnati, and ordered to Washington, D. C., for examination for promotion and to await orders.

U. S. Public Health and Marine-Hospital Service

Changes for the two weeks ended Jan. 31, 1912.

Cofer, L. E., assistant surgeon general, directed to proceed to Philadelphia, Gloucester, N. J., and New York to inspect the operations of the service in the medical inspection of arriving aliens. Also, while in New York City to deliver an address before the New York Academy of Medicine on maritime quarantine.
Lavinder, C. H., P. A. surgeon, directed to inspect the South Atlantic quarantine station.
von Ezdorf, R. H., P. A. surgeon, directed to proceed via Austin to Dallas, Tex., to investigate cerebrospinal meningitis.
Anderson, J. F., P. A. surgeon, detailed to represent the service at the meeting of the National Committee on Milk Standards to be held under the auspices of the New York Milk Committee in New York, Jan. 25-27, 1912.
McCoy, G. W., P. A. surgeon, appointed by the governor of Hawaii as a member of the sanitary commission of Honolulu.
Ebersole, R. E., P. A. surgeon, relieved from duty at the marine hospital, San Francisco, and directed to proceed to Pensacola, Fla., and assume temporary command of the quarantine service there.
Roberts, Norman, P. A. surgeon, directed to proceed to Baltimore to arrange for service exhibit during "Health Week" to be conducted under the auspices of the Medical and Chirurgical Faculty of Baltimore, beginning Feb. 19, 1912.
Blount, B. R., A. A. surgeon, granted thirty days' leave of absence from Feb. 1, 1912.
Board of medical officers convened to meet at the marine hospital, Chicago, Jan. 29, 1912, for the examination of Passed Assistant Surgeons H. S. Mathewson and Tallafero Clark to determine their fitness for promotion to the grade of surgeon. Detail for the board: Surgeon R. M. Woodward, chairman; Surgeon J. O. Cobb; Passed Assistant Surgeon J. S. Boggess, recorder.
Board of medical officers convened to meet at Halifax, N. S., for the examination of alien immigrants. Detail for the board: Acting Assistant Surgeon T. W. P. Flinn, chairman.

V. 5
1912

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF POST-GRADUATE WORK, CONTRACT PRACTICE, LEGISLATION, MEDICAL DEFENSE, AND OTHER MEDICOLEGAL AND ECONOMIC QUESTIONS OF INTEREST TO PHYSICIANS

COMBINED OFFICE AND RESIDENCE

Jesse P. Simpson, M.D.
PALMER, ILL.

H. M. Ferguson of Morris, Ill. (THE JOURNAL, Oct. 21, 1911, p. 1386), inquires for plans for combined office and residence. This is a very practical question. The accompanying view and ground plan are submitted with the hope that they will call forth other useful suggestions or more perfect plans. In this case the residence had been previously constructed, and this appeared the most practical way to join an office to it.

Before putting this plan in action, I consulted an old practitioner, who had made a success of the practice of medicine in many ways, and he replied: "If I had it to do over again a thousand times, I would always build the house and office together."

The present arrangement has been in use for eight years, during which time much success has been attained in a surgical way. The nearest hospital is 12 miles away, and when I first built, the nearest one was 30 miles distant.

If building the whole structure new, I would make some slight alterations. It would be an advantage to have a broad hallway between the two units, i. e., extending along one side

House of a country physician with a wing for office and operating-room.

of the residence, with doors opening into various rooms, so that a wheeled litter could be readily taken from the operating-room to a bed, without traversing one or more rooms crowded with furniture. This would add much to the cost in building, but the housewife could always find this hall useful for something, especially if made of ample width. The office could then be set as far back as one might wish—and opening into this hallway—leaving the residence as the most prominent feature of the structure, and yet giving ready access from the operating-room to several ground-floor rooms of the residence.

The position of our drug-room, or laboratory, is ideal, since having but one end exposed to the weather it never gets very cold there even in the severest weather. A window in the partition—adjoining the vestibule—and a glass door opening at the rear of vestibule afford light from both ends of drug-room.

The physician should not let his vanity prompt him to give a large space to the waiting-room at the expense of curtailing the operating-room, especially in country districts where the patients cannot be induced to come during a short number of office hours in the middle of the day.

THE OPERATING-ROOM

The four windows in the operating-room are extra large, and the lower sashes have the Florentine glass, so that no blinds are necessary even after nightfall.

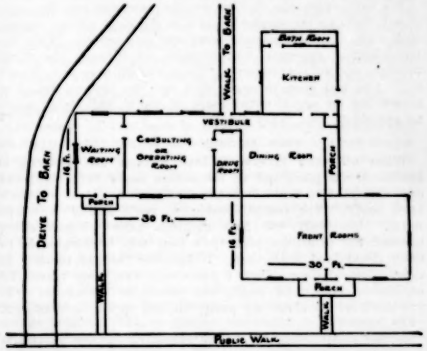
It would be some advantage if the operating-room were a little more isolated, so that the family and various callers would not find it so convenient as a thoroughfare. It could the more readily be kept in readiness for emergency surgery, and would be more easily prepared for the set operations.

Having storm windows in place all around, we have heated this room from stoves placed in the dining-room and waiting-room; and all being ready the intervening doors are closed and ether used as the anesthetic, without any danger from explosion of its vapor.

The driveway to the stables and carriage-house in the rear extends along the end of the office, and cripples or emergency patients are helped out of vehicles directly onto the office porch and conveyed into the operating-room with little exertion.

THE VERDICT OF EXPERIENCE

Dr. Joseph Mathews, in his excellent little book, "How to Succeed in the Practice of Medicine," advises against having the "office in the residence," arguing that it entails a lot of hardship on the wife. After eight years, we find that this is not a valid objection. The honest, self-respecting people with whom we usually deal in a farming community do not make themselves objectionable. Moreover, the country physician takes many meals away from home—many of them at mid-



Plan of combined house and office.

night—during the course of the year, and it is invariably the best that these people have to offer, so that the occasional entertainment of them in our home is a genuine pleasure. Some of our best collections are made on these rare occasions.

I tried the isolated office for four years, during which time no surgery of any magnitude was undertaken, barring the obstetric surgery that one is forced into in private houses.

It has been offered as an objection that under this combination plan those suffering from venereal disease will be deterred from calling on the physician for treatment. This has not proved true in our case. Even if there be any loss in this direction, it is more than compensated for by the amount of respectable gynecologic practice that has come to us. To the average woman, the ordeal of examination loses much of its terrors when the surgeon's wife is to act as attendant.

OPERATING EQUIPMENT

Under no other plan will the young practitioner develop a successful surgical technic if denied the conveniences of a well-appointed hospital. The advantages are a hundredfold. We use the ordinary antirusting wash-boilers; a faucet is soldered into one end. Filled with water from the cistern, and boiled for a half day or more on the kitchen range, then carried to a low shelf in the operating-room behind the heating stove and well covered to exclude dust, we have sterilized water on hand at all times for every purpose. One should not make up

a simple eye lotion without sterile water. We buy gauze by the hundred yards, cut it up and sterilize it ourselves in the kitchen, after which it is dried out in the oven and placed in glass jars with cover fitting over outside. In packages containing six or a dozen pieces it is always convenient to get at when packing up the emergency or obstetric grip. Sterilized towels in packages of three or more are also kept on hand. With an elongated sterilizing kettle surgical instruments are readily boiled at any time, on an oil stove or a coh fire built in the large range.

THE PHYSICIAN'S WIFE AS AN ASSISTANT

Every physician's wife should be taught to give an anesthetic and to supervise the sterilization of gauze, gowns and surgical instruments, even if her courage is not of that quality so essential on the "firing line." In the early days we often sought the aid of a graduate nurse. At present we do all sorts of minor surgery, without calling in any outside aid.

We feel pretty secure in our technic. Our cases of injury from axes, mowing-machines and other farm implements get along without suppuration. We have never had tetanus develop, but actually saved a boy, 6 years old, who was brought to us eleven days after he had run a splinter in his foot, and after he had developed the convulsions. Besides the hundreds of this class of operations, we have done fifty-six operations of the major sort without a death or mishap.

We both enjoy the medical society meetings and the occasional visits to the surgical clinics in the large cities. On one such visit, a simple appendectomy was in progress. When the non-adherent appendix was brought up through the small incision, my wife whispered: "That was an easy one, wasn't it?" She had gone through, with me, the tedious ordeal of separating an agglutinated mass of bowel sufficiently often to appreciate this "easy one."

TIME ALLOWED FOR STUDY

When all one's literature, both medical and general, is located in one place and all the leisure hours, both night and day, are spent at that place, the conditions are ideal for much hard study. The companionship of one's family is worth much. Moreover, our four children have without effort imbibed the principles of asepsis that will be invaluable to them throughout a lifetime. It becomes "second nature" in time. One of them, when 4 years old, was being teased by an elderly aunt. At length the youngster exclaimed: "If you don't let me alone, my papa will boil up his tools and cut your legs off."

In the small village it is not necessary for the establishment to be located "up on the square," in order to get business. Most country calls reach you by telephone. Our place is two blocks from "the square" and one block from the station house. It is at the end of a grassy commons and the railroad parallels our front 100 feet away. When people are badly hurt, they always find our operating-room. Several of our cases of emergency surgery have been from the railroad. One of the patients, with an arm and a hand cut off under the wheels, left our place with a smile on his face forty-eight hours later, and his recovery was uneventful.

THE ECONOMY OF THIS ARRANGEMENT

We have no duplication of telephone rents. The office slate, so frequently misleading, is never employed. Midnight office calls are quickly attended in shirt, trousers and house-slippers without discomfort, any time in the year. The whole family and the hostler act the part of the office boy. And this concentration of energies is a great saver of time.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

Sixth Month—Third Weekly Meeting

SPLENOMEDULLARY LEUKEMIA[1]

SYMPTOMS: Insidious onset, early symptoms, hemorrhages, enlarging spleen, circulatory symptoms, nervous symptoms.[2] Occurrence in childhood.[3]

BLOOD CHANGES: Number of white cells. Ratio of reds. Myelocytes, eosinophils, "polymorphous blood." Number of red cells, nucleated forms.

TREATMENT: Roentgen ray.[4] Exposures (length and location). Immediate and remote results. Hygienic treatment. Internal treatment. Arsenic, physiologic and therapeutic actions. Bone marrow preparations.

LYMPHATIC LEUKEMIA

PATHOLOGIC ANATOMY: Glands usually involved, physical appearances, microscopic changes. Lymphoid structures usually involved. Changes in liver, leukemic nodules. Changes in kidneys. General distribution of leukemic nodules.

DIAGNOSIS: Clinical history, arrangement of enlarged glands. Blood changes. Lymphocytes, other forms of whites. Reds, number, nucleated.

TREATMENT

1. Warthin: International Clinics, 1909, vol. iv, p. 280.
2. Woods: Penn. Medical Journal, April 10, 1910.
3. Karsner: Univ. Penn. Med. Bulletin, 1909-10, vol. xii.
4. Stengel and Pancoast: THE JOURNAL A. M. A., April 25, 1908.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

CONNECTICUT: Regular, City Hall, New Haven, March 12-15. Sec., Dr. Charles A. Tuttle; Homeopathic, Grace Hospital, New Haven, March 12. Sec., Dr. Edwin C. M. Hall, 82 Grand Ave.; Eclectic, Hotel Grace, New Haven, March 12. Sec., Dr. T. S. Hodge, 19 Main St., Torrington.

KANSAS: National Hotel, Topeka, February 13. Sec., Dr. H. A. Dykes, Lebanon.

MAINE: City Council Rooms, Portland, March 12-13. Sec., Dr. Frank W. Searle, 776 Congress Street.

MASSACHUSETTS: State House, Boston, March 12-14. Sec., Dr. Edwin B. Harvey, Room 159, State House.

NEBRASKA: State House, Lincoln, February 14-15. Sec., Dr. E. Arthur Carr, 141 S. 12th Street.

WYOMING: Riverton, March 13-15. Sec., Dr. Albert B. Tonkin.

National Confederation of State Boards

The following program has been announced for the meeting of the National Confederation of State Medical Examining and Licensing Boards, to be held in Chicago, Thursday, Feb. 29, 1912, at the Congress Hotel:

1. "What a National Federation of State Boards Can Do." By Dr. Albert B. Brown, secretary of the Louisiana State Board of Medical Examiners, New Orleans. The discussion will be opened by Dr. Charles A. Tuttle, secretary of the Connecticut State Board of Medical Examiners, New Haven.

2. "What Should be the Requirements for Membership in a National Federation of State Boards?" By Dr. John Milton Dodson, dean of Rush Medical College, Chicago. The discussion will be opened by Dr. Alexander Lambert, dean of Columbia University College of Physicians and Surgeons, New York City.

3. "Best Methods of Conducting State Licensing Examination." By Dr. George H. Matson, secretary of State Medical Board of Ohio, Columbus. The discussion will be opened by Dr. George M. Williamson, secretary of the North Dakota State Board of Medical Examiners, Grand Forks.

4. "Medical School Equipment and the State Board License Examination." By Dr. Frank Fairchild Wesbrook, dean of the University of Minnesota College of Medicine and Surgery, Minneapolis. The discussion will be opened by Dr. Beverly D. Harison, secretary of the Michigan State Board of Registration in Medicine, Detroit.

The afternoon session will be devoted to business, including reports of committees and the election of officers.

Ohio December Report

Dr. George H. Matson, secretary of the Ohio State Medical Board, reports the written and practical examination held at Columbus, Dec. 5-7, 1912. The number of subjects examined in was 11; total number of questions asked, 110; percentage

required to pass, 75. The total number of candidates examined was 20, of whom 17 passed and 3 failed. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Johns Hopkins University.....(1910) 83.1;	(1911)	83.6
College of Physicians and Surgeons, Baltimore.....	(1909)	84.6
University of Michigan, Dept. of Med. and Surg....	(1905)	85.9
St. Louis University.....	(1911)	75.7
Cleveland Homeopathic Med. College (1907) 84.2;	(1910)	79.6
Western Reserve University.....	(1910)	85.2
Ohio-Miami Medical College.....	(1911) 82.6,	83.9
University of Pittsburgh.....(1910) 80.9;	(1911) 78,	81.3
Jefferson Medical College.....	(1911) 80,	82
Hahnemann Medical Coll. and Hosp., Philadelphia..	(1908)	81
McGill University, Montreal, Quebec.....	(1910)	86.5
FAILED		
Eclectic Medical College, Cincinnati... (1910) 65;	(1911)	73.7
Starling-Ohio Medical College.....	(1911)	74.3

Minnesota January Report

Dr. W. S. Fullerton, secretary of the Minnesota State Board of Medical Examiners, reports the written, oral and practical examination held at Minneapolis, Jan. 2-5, 1912. The number of subjects examined in was 11; total number of questions asked, 110; percentage required to pass, 75. The total number of candidates examined was 9, all of whom passed. Eleven reciprocal licenses were granted. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Rush Medical College.....	(1911)	82.2
Louisville and Hospital Medical College.....	(1908)	86
College of Physicians and Surgeons, Baltimore.....	(1903)	82.2
Hamline University.....	(1910)	83
University of Pennsylvania.....	(1910)	82
Hahnemann Medical College and Hospital, Philadelphia, 78.8; (1902) 77.3.	(1894)	
Manitoba Medical College.....	(1907)	78.8
University of Toronto, Ontario.....	(1911)	82.7

College	Year Grad.	Reciprocity with
LICENSED THROUGH RECIPROCITY		
George Washington University.....	(1908)	Dist. Colum.
Chicago College of Medicine and Surgery..(1909)	(1910)	Illinois
Rush Medical College.....	(1907)	Illinois
University of Michigan, Dept. of Med. and Surg..	(1895)	Iowa
Hamline University.....	(1903)	N. Dakota
University of Nebraska.....	(1907)	N. Dakota
Hahnemann Med. Coll. and Hosp., Philadelphia..	(1896)	Ohio
Medico-Chirurgical College of Philadelphia....	(1900)	Maine
Wisconsin College of Physicians and Surgeons...	(1910)	Wisconsin
Imperial Alexanders University of Finland.....	(1903)	Ohio

Ohio January Reciprocity Report

Dr. George H. Matson, secretary of the Ohio State Medical Board, reports that at the meeting held Jan. 10, 1912, fifteen candidates were licensed through reciprocity. The following colleges were represented:

College	Year Grad.	Reciprocity with
LICENSED THROUGH RECIPROCITY		
Jenner Medical College.....	(1906)	Illinois
Hahnemann Med. College and Hospital, Chicago..	(1907)	Illinois
Bennett Medical College.....(1897) Indiana;	(1910)	Illinois
Chicago College of Medicine and Surgery.....(1911, 2)		Illinois
National Medical University, Chicago.....	(1904)	Illinois
College of Physicians and Surgeons, Baltimore..	(1910)	Maryland
Johns Hopkins University.....	(1910)	New York
University of Michigan, Department of Medicine and Surgery.....(1894) Iowa;	(1910)	Maryland
Cornell University Medical College.....	(1905)	New York
Columbia University, College of Phys. and Surgs.	(1908)	New York
Hahnemann Med. Coll. and Hospital, Philadelphia.	(1882)	Kentucky
University of Palermo, Italy.....	(1908)	Maryland

Rhode Island January Report

Dr. Gardner T. Swarts, secretary of the Rhode Island State Board of Health, reports the written and oral examination held at Providence, Jan. 4-5, 1912. The number of subjects examined in was 7; total number of questions asked, 70; percentage required to pass, 80. The total number of candidates examined was 9, of whom 6 passed and 3 failed. The following colleges were represented:

College	Grad. Year	Cent. Per
PASSED		
College of Physicians and Surgeons, Baltimore.....	(1911)	85.9
Harvard Medical School.....	(1910)	90.2
Dartmouth Medical School.....(1900) 80;	(1911)	80.4
Jefferson Medical College.....	(1910)	90.6
Laval University, Quebec.....	(1911)	80
FAILED		
Georgetown University.....	(1910)	71.6
Tufts College Medical School.....	(1909)	73.6
University of Vermont.....	(1910)	76.1

Utah January Report

Dr. G. F. Harding, secretary of the Utah State Board of Medical Examiners, reports the written and oral examination held at Salt Lake City, Jan. 2-3, 1912. The number of subjects examined in was 19; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 3, all of whom passed. One candidate was licensed through reciprocity. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
University of Colorado.....	(1911)	82.7
Northwestern University Medical School.....	(1911)	78.7
Tokyo Medical College, Japan.....	(1905)	75.1

College	Year Grad.	Reciprocity with
LICENSED THROUGH RECIPROCITY		
Washington University, St. Louis.....	(1909)	Missouri

Book Notices

THE TREATMENT OF FRACTURES BY MOBILIZATION AND MASSAGE. By James B. Mennell, M.D., B.C., Late Resident Medical Officer of St. Thomas' Home. With an introduction by Dr. J. Lucas-Championnière, Chirurgien Honoraire de l'Hôtel Dieu. Cloth. Price, $4 net. Pp. 458, with 66 illustrations. New York: Macmillan Co., 1911.

Mennell does not claim to have originated the method of treatment advocated by him, but acknowledges that it is founded on the teachings of Lucas-Championnière of Paris. The manuscript was submitted to Lucas-Championnière, who has expressed his approval thereof in a ten-page introduction in French. The work is divided into two parts, the first dealing with the subject in a general way, the second with the treatment of particular fractures.

The author of this book is such an enthusiast and so carried away by the method advocated that there is great danger of one being misled by his statements unless there is great care in picking out the truth, of which there is much, from the sophistry, of which there is not a little. In the preface the following is found: "The most auspicious feature of this method of treatment is its simplicity; gentleness of touch is all that is required and thus there is no inherent obstacle in the way of its universal adoption. . . . Thus it will be seen that no special experience is called for when the treatment of fractures on the lines advocated is to be undertaken." It will take more evidence than Mennell adduces to convince the average surgeon that no special experience is necessary and that gentleness of touch is all that is required in order to treat fractures successfully. The terms mobilization and massage are perhaps not well chosen to connote what is really meant by their use. The author is very careful to define what he means by massage, and states distinctly and repeatedly that it is not what is ordinarily practiced by the professional masseur. In fact he looks on the professional masseur as eminently unsuited by training to give what he means by massage. By massage or glucokinesis, as it is termed, is meant the softest and most gentle rubbing or stroking imaginable. "The movements are little more than a caress, being so smooth and light that they almost resemble a mesmeric pass." In certain cases the touch is to be so light that preliminary passes are made "without the hand coming in contact with the limb."

Most specific rules are given how to perform the massage, but a rubbing which fades from "a little more than a caress" into "a mesmeric pass and finally into the pass of the hand over the limb without actually touching it at any point" must also pass into the realm of suggestion. It is even claimed that "massage applied to one extremity is capable of exerting a beneficial effect on morbid conditions existing on the opposite side of the body." The effect of such massage, it is claimed, is to produce complete anesthesia of the parts so that they may be manipulated without pain; but, Mennell says, "incidentally a supply of sweets is an invaluable auxiliary in the treatment of fractures in children." "The recovery of the circulation in children is so rapid that massage is never required for the treatment of a child as it is in the case of an adult."

The chapter on "The Setting of Fractures" contains a number of examples of curious reasoning. One is made to believe that the massage relieves the pain and muscular spasm so that the fracture practically reduces itself spontaneously. "But massage treatment enables us to go even further than this, for its effect does not cease with the reduction of the deformity; the beneficent effect remains and the deformity in many cases does not recur."

"As a last example of the power of massage to reduce deformities we may notice those fractures of the olecranon in which there is much separation of the fragments. Under the influence of massage the spasm is overcome and the fragment sinks back into apposition with the remainder of the bone."

Concerning the results of treating fractures of the olecranon in this way, he says: "Professor Lucas-Championnière states that bony union is the rule; it is unfortunately not within my experience at present if separation of the fragments has been great."

That deformity occurs in fractures is admitted but the deformity is not diminished by calling it "pseudo-deformity," a term which he applies to the deformity which is seen especially after fracture in the neighborhood of a joint, "the most favorable situation for a study of the phenomena being the region of the wrist after fracture through the lowest inch of the radius."

That the author's judgment occasionally rises above his theory is shown by such sentences as the following: "While fully accepting Professor Lucas-Championnière's statement that the necessity for the restoration of the shape of a fractured bone in such cases as those of Colles' fracture is as fallacious an idea as that of the necessity for fixation, there is no excuse for treating a fracture presenting any marked degree of deformity by mobilization and massage alone under the impression that the result to be attained, functional utility, justifies the neglect of deformity."

"Where there is great deformity which resists all attempts at reduction, even under an anesthetic combined with massage and where contra-indications are lacking, then the best result will be obtained by operation followed by mobilization and massage." "Where operative procedure is called for it is impossible that treatment by mobilization and massage alone can take its place with actual success."

Notwithstanding such sentences scattered through the book, Lane and his work are quite severely criticized. While Mennell has little to say about the use of splints and says that little in an indefinite way, it is plainly to be seen that they are used much more frequently than might be inferred. It is interesting to note, too, that the first contra-indication to the treatment of fractures by mobilization and massage which he gives is "mobility of fragments." Mobility of fragments, however, is usually present in most fractures of the long bones so that the first contra-indication is a contradiction of much of that which precedes.

It will be readily acknowledged that there is room for improvement in the methods of treating fractures. It is quite evident, too, that as a rule fractured limbs are kept too long in fixed dressings without having the parts moved and without the muscles being allowed to act. Mennell, in emphasizing these facts, is doing much good and if his advice in this respect were more frequently followed the period of recovery of most fractures would be materially shortened. The great trouble with the book, however, is that the author's enthusiasm frequently runs away with his good judgment, and unless those who read the book recognize this and are governed accordingly they may meet with many unsatisfactory results in the treatment of fractures.

THE MECHANISM OF THE HEART-BEAT. With Especial Reference to Its Clinical Pathology. By Thomas Lewis, M.D., M.R.C.P., D.Sc., Lecturer in Cardiac Pathology, University College Hospital Medical School, London. Cloth. Price, $7 net. Pp. 295, with 214 illustrations. New York: Paul B. Hoeber, 1911.

The rapid advances in our knowledge of the clinical pathology of the heart have made it nearly impossible for the general reader to keep pace with the progress. He is disheartened in his attempts to understand the mechanism of the polygraph or of the string galvanometer and is bewildered as he tries to interpret their hieroglyphic tracings. To one desirous of gaining an insight into this recent knowledge, this book will be most welcome, for it is written by one whose thorough mastery of the clinical and experimental features enables him to write with authority and to select from a full mind what is proper for presentation and to omit the unsuitable. This we regard as one of the most praiseworthy characteristics of the book—that it presents the essentials and the facts concerning which there is little or no controversy and omits non-essential details and questions that are still in an unsettled state. The style is remarkably direct and simple; problems that are involved and intricate become clear and intelligible under the author's logical and lucid explanations. He is a firm believer in the value of the instrumental study of the heart as an aid to a proper understanding of its workings in health and in disease, but believes as well that the intelligent use of polygraphy and electrocardiography makes one a better clinician and diagnostician, able to administer one's remedies more rationally and to foretell more definitely the outcome of the disease. Those who are familiar with the writings of Dr. Lewis, e. g., his contributions to *Heart*, are not surprised that this work of compilation has been well done. But to call it a compilation is unjust, for it contains much that is Lewis' own original work and is imbued from beginning to end with an independence of opinion and of manner of expressing it, that can come only from one thoroughly conversant with his subject.

The mechanical features of the book are excellent; the paper is well suited to show to the best advantage the many fine polygrams and electrocardiograms. There is a good index and a table of definitions. James Mackenzie and William Einthoven are surely honored by having such a worthy monograph dedicated to them.

Miscellany

Chloroform Poisoning.—Mr. Howard Stiles, Edinburgh, Scotland, referring to the fact that the pioneer work on this subject had been credited to him, said that this was not justified by the facts, because the pioneer work was done by Leonard Guthrie of London, who at the time was both pathologist and anesthetician of the Paddington Green Children's Hospital. Guthrie's paper was entitled "Death after Chloroform Anesthesia in Children Suffering from a Peculiar Form of Fatty Liver." Continuing, Mr. Stiles said (Tr. Sect. on Obst. and Gynec. A. M. A., 1911): Within one year of my being appointed full surgeon to the Children's Hospital about twelve years ago, I came across a typical case which impressed me very much indeed; and I may say that once having seen a typical case of lethal chloroform poisoning and having seen the post-mortem, one will recognize it at once. The case was that of a little girl, 10 years of age, operated on for congenital hernia. The operation lasted for about twenty minutes. The patient had no vomiting in the afternoon; in the evening vomiting began, hemorrhagic and coffee-ground in character. The pulse began rapidly to run up to 150, to get small and soft. The mental condition was quite characteristic, but first there was an excitability amounting to delirium, with crying out as in a case of tubercular meningitis. This was followed by a lethargic condition and coma with death. There were distinct changes in the scanty urine. The kidneys were fatty, the liver almost the color of the table. I recollected having read Dr. Guthrie's paper and remembered enough of it to say to myself that here was a case of lethal chloroform poisoning.

I published reports of eight cases; all of the patients died in the Children's Hospital. They had been operated on, some of them for nevus, clubfoot, etc. When Dr. Guthrie read his paper, the surgeons did not seem to believe that the chloroform had anything to do with the condition. Some explained that death was due to phenol (carbolic acid) poisoning; others, to fat embolism, and others again to a septic condition. I found that in my own hospital only one other case had

occurred, and we found such cases were more liable to occur in patients suffering from some bacteria toxemia, especially one originating in the abdominal cavity, particularly in cases of suppurative appendicitis and salpingitis. In explanation, Dr. Guthrie maintains that all of these patients have a fatty degeneration of the liver before the anesthetic is given. What makes me feel that that is not always the case is that I have seen the liver in such cases at the operation and it appeared to be perfectly healthy, and when the patient died of these symptoms we found the extreme fatty degeneration. We could easily produce the condition of fatty liver by prolonging the anesthesia. How chloroform acts I cannot say, except that it does cause fatty degeneration of the liver with destruction of the liver cells, and that this fatty degeneration is by no means confined to the liver. It involves the kidneys, the blood-vessels, stomach, meninges and brain. This goes far to explain the hemorrhage and cerebral symptoms.

The paper to which your chairman referred was read before the Society of Diseases of Children in London. Sir William Cheyne was present. He was familiar with Dr. Guthrie's work but did not seem to accept the explanation of these cases. We soon found that when children died of septic appendicitis we got all the conditions between the fatty degeneration—cloudy urine, swelling, etc.—and the condition which is characteristic of lethal chloroform poisoning. I am perfectly certain that the administration of chloroform is a very dangerous proceeding in cases of acute bacterial toxemia.

I am convinced that the reason American surgeons ten years ago were getting so much better results than we in Great Britain obtained was that they were using ether while we were using chloroform. As soon as I was convinced that this was the case I stopped using chloroform in all septic conditions. I began the first of January of a certain year and then compared my results with those previously obtained in suppurative appendicitis; they were incomparable. We do not expect to lose a patient with septic appendicitis now. That is the main point that I wish to bring out to you who are still using chloroform. Dr. Stillman of San Francisco told me that he had given up the use of chloroform five years ago and that since that time his results had been enormously better. He finds his results to be better since he began to substitute ether, although, until I pointed it out to him, he was not aware of any association between the anesthetic and the mortality.

In response to a question by Dr. William W. Grant, Denver, as to what evidence there was other than the clinical one of simple seeming cause and effect, that the chloroform was productive of this serious and fatal toxemia, Mr. Stiles continued: When our first case occurred, it was natural that I should look into the literature. In 1850 a case was reported and the work done was conclusive. Chloroform acts on the liver cells as does phosphorus poison, or whatever may produce acute yellow atrophy. We could exclude other conditions. We considered fat embolism, but the destruction of the liver was so complete that there was no difficulty in excluding that. What the exact explanation is, I am not prepared to say. There are a good many theories. The whole thing seems to depend on some error in the fat metabolism. One practical point is that we never should give chloroform to a child who is subject to bad bilious vomiting. Associated with this vomiting there is acetonuria, and in such fatal cases we have the same condition of liver as in lethal chloroform poisoning.

Small Sewage Disposal Plants.—Progress in sanitary matters has created a demand for effective plans for the disposal of sewage for small cities and towns and even for individual plants which shall not be too expensive. The *Manufacturers' Record*, Jan. 11, 1912, describes such a plant installed at the Maryland Agricultural College. It is made to dispose of the sewage of a population of 250 and a daily flow of 35,000 gallons of sewage is provided for. The plant consists of a clarification tank, 17 feet deep by 12 feet long at the top and 10 feet wide, built of reinforced concrete. At the entrance to this tank is a grit chamber which allows of the deposition of coarse grit before it enters the clarification tank. The clarification tank has a pyramidal bottom and a capacity equal to eight hours' flow. The sewage is distributed by falling on a cone located well down within the tank and the liquid portion rises to the top, thus sealing it. The sludge may be removed from the pyramidal bottom without disturbing the sewage above. A syphon chamber with automatic alternating syphons is provided to receive the effluent from this clarification tank. The final treatment consists in filtering the effluent from the settling tank through beds of sand and gravel. Four separate beds are provided for this plant, the total area amounting to one-fifth of an acre. The material is distributed by troughs traversing the beds. The bottom of the beds is carefully graded and underdrained, with parallel lines of three-inch tile, which collects and carries off the liquid as it passes through the filter. The tile also ventilates the beds. The clear effluent is then discharged into a stream, after having undergone a biologic change in the pores of the sand filter, caused by saprophytic bacteria. These bacteria destroy the undesirable bacteria in the effluent so that the putrescible organic matter is converted into stable nitrates. These filter beds are dosed automatically and intermittently once every three hours. The sludge from the clarification tank is simply an inorganic humus and may be disposed of without nuisance or danger on open farm lands. The estimated cost of this plant is $2,500. The expense of operating is small, only requiring one man for a few hours at considerable intervals of time.

Medicolegal

The Adulteration of Milk with Water

(*City of St. Louis vs. Amelu* (*Mo.*), *139 S. W. R. 429*)

The Supreme Court of Missouri affirms a conviction of violating a city milk ordinance by the possession, with the intent to offer for sale and sell, of skimmed milk adulterated with water. The court says that it was contended that the mixture of water with skim milk must be "so as to lower and depreciate its strength and quality," the idea apparently being that the complaint was deficient in not setting forth some fixed standard by which to judge "strength and quality." Otherwise (so the argument ran) the standard might be an ideal one in the chemist's mind, or one prescribed by ordinance, or the condition of the milk prior to the addition of the water might be the standard; hence the complaint should throw light thereon, so that the defendant might know by which measuring rod or standard his act was to be measured; that course would provide a check to the testimony of the chemist. But the court will assume that science can detect the addition of water in milk, whether the dairymen's cows gave poor milk or rich milk, regardless, too, of any mere ideal standard in the chemist's mind, or of any ordinance standard.

It is nothing to the point to say that there is a large percentage of water in milk as it comes from the cow. That particular water has been so treated by the subtle and mysterious alchemy of Nature that presumably it holds in solution such delicately adjusted and blended proportions of fatty and non-fatty solids as make normal cow's milk (wholesome to all) a necessity to the young. Milk, an object of profound and vigilant concern to the modern lawmaker, has been always part and parcel of the daily life, the adages, and folklore, of mankind; and all the metaphors, etc., eschew the belittling idea of water in milk; the milk held in mind is good milk. Indeed the universal, primal and spontaneous mental conception we have of milk, in the first instance, is that it is unwatered.

The court thinks that the ordinance in question proceeds on the notion that, however much the cow waters her own milk in her humble and honest way (letting Nature take her course), the milkman has no right to designedly duplicate Nature's gift of water by a furtive gift of his own from the barnyard pump. It proceeds on the underlying theory that it is a fraud, a trick, and a veritable cheat—contrary to the common law, and hence of that phase of it known as the "square deal"—to sell water, when milk, not water, is the commodity dealt in. If one is not to get a stone who asks for bread, no more (under the spirit of the ordinance) is he to get water who asks for milk.

The court will take judicial notice of the laws of Nature, and one of them is: Water is bound to lower and depreciate the strength and quality of milk of any standard. "As weak as water" is a comparison summing up the whole brood of weaknesses; ergo, a standard is not an essential element in a charge of adulterating milk by adding water.

Milk is the food of foods. The felicity of the table hinges on milk. Nay, considered by and large, bar milk, and how long would the race itself last? We know, too, that cow's milk is a respectable and common substitute for mother's milk. To injure the young is to grind the seed-corn.

Liability for Malpractice, Permitting Phenol to Touch Cornea —Sufficiency of Evidence—Law of Negligence

(James vs. Robertson (Utah), 117 Pac. R. 1068)

The Supreme Court of Utah affirms a judgment in the plaintiff's favor for damages for malpractice alleged to have caused the loss of sight of an eye. The court says that the case was peculiar in that the injury complained of did not really arise out of any want of skill on the part of the defendant in performing the operation he did on the plaintiff's eyelid for the removal of a cyst, but the injury to the eye was caused by an act which did not necessarily require any more than the skill, knowledge and experience of any ordinarily prudent person. If the defendant permitted a solution of phenol (carbolic acid) to come into contact with the cornea of the plaintiff's eye, without any necessity therefor, and of such strength as would injure the eye, he might be found guilty of negligence. Whether some of the carbolic acid solution which the defendant admitted he used came into contact with the cornea of the plaintiff's eye or not was a question of fact which the jury could have deduced from the testimony of the plaintiff's witnesses, when considered in connection with the prevailing symptoms following the operation, and from the subsequent results which the experts said could and may have been produced by the admission of the solution into the eye.

These salient, and, as the court thinks, controlling facts were not seriously questioned. The plaintiff, at a time when she was in at least fair health, and when her eye was in good condition, had a slight operation performed on the eyelid. The operation did not, and was not intended to, affect the interior portions of the eye. After the operation the defendant applied some liquid to the wound which he said was a weak solution of carbolic acid, in doing which he burned the plaintiff's face in three places, and about 15 or 20 minutes thereafter the plaintiff, on her way home, stopped in at a neighbor's because of great pain in her eye. Her eye was then much inflamed, and the pain continued and increased. That evening or night her husband examined the eye and found a blister in it, as though the eye was burned. The eye kept getting worse, until about fourteen days after the operation, when the defendant requested her to go to an eye specialist, who discovered that she was afflicted with a corneal ulcer, which ultimately caused the loss of her eyesight. About every one of the experts called by the defendant conceded that such an ulcer might, and probably would, be caused by a solution of carbolic acid, if the solution were permitted to remain in contact with the cornea for a considerable length of time. It was also conceded by all that a carbolic acid solution, if strong enough, would produce many, if not all, the symptoms described by the plaintiff and her witnesses. True, all of the experts also said that there were many causes, other than carbolic acid, that might bring about corneal ulcers, but there was no testimony that the court could find that any one or more of such causes were actively present and operating in the plaintiff's case. It seemed to the court that the conclusion was almost unavoidable that there was at least some substantial evidence in support of the jury's findings for the plaintiff.

The law was properly stated by a charge to the jury, in substance, that, before they could find for the plaintiff, they must be satisfied by a preponderance of all the evidence that some acid or other liquid, of sufficient strength to cause a lesion of the corneal tissues of the plaintiff's eye, was permitted by the defendant, while operating on the eyelid of the plaintiff's eye, to drop or in some way escape into her eye, and that such acid or liquid did cause such a lesion and the resulting injury; that the jury must also further find, by a preponderance of all the evidence, that the defendant was negligent in permitting the acid or liquid to drop or escape into the plaintiff's eye.

The doctrine, that when a plaintiff produces evidence consistent both with a hypothesis of the defendant's being negligent and one of his not being negligent it tends to establish neither, did not apply to this case because it applies only when the plaintiff's evidence, when considered alone has such an effect, or when the jury finds the evidence equally balanced. It does not apply when all of the evidence produced by both sides, some of which is in dispute, is capable of such construction, because there is no law which binds a jury to believe any of the defendant's evidence which conflicts with that of the plaintiff.

In a case in which the question is whether the defendant was guilty of negligence or not, the plaintiff need merely show a state of facts from which the jury may logically infer negligence; and if the jury believe the plaintiff's evidence from which the inference of negligence may be deduced it may be, and ordinarily is, sufficient to sustain a finding of negligence; and this is so, even if the defendant disputes all of the plaintiff's evidence, or produces evidence from which the jury might find that the injury complained of was due to a cause or causes for which the defendant was not responsible.

The law is not that a plaintiff must fail in case the injury of which he complains might have been caused—that is, that there was a possibility that it was caused—by some cause or causes for which the defendant was not responsible, but he must fail only when it is just as probable from the evidence adduced by the plaintiff, or in case the evidence is equally balanced, that the injury was produced by some cause for which the defendant was not responsible, as it is that it was produced by a cause for which he was. The mere fact that there is a possibility that the injury complained of was produced by some other cause than that claimed is not enough.

In view of the conflicting inferences that could be deduced from the opinions of the experts, the jury had a right to disregard the opinion expressed by the experts that the particular solution did not cause the injury to the eye.

Again, it is true that, in order to authorize a finding that one who is following a profession or calling requiring special skill, knowledge and experience is guilty of negligence or unskilfulness, it is necessary to furnish some proof from some source possessing the required skill, knowledge and experience that the acts complained of did not measure up to the standard of skill, knowledge and experience required in the particular calling or profession. But that principle could not be applied to its full extent in this case because the defendant did not seek to justify, but denied, the act attributed to him.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Journal of Missouri State Medical Association, St. Louis

January, VIII, No. 7, pp. 267-300

1 Small-Pox Quarantine in Practice and Its Failure. G. Dock, St. Louis.
2 Adhesions Presenting Surgical Complication of Pregnancy. G. A. Beedie, Kansas City.
3 Surgical Treatment of Paralysis Following Anterior Poliomyelitis. N. Allison, St. Louis.
4 Cutaneous Blastomycosis; Report of Three Cases. W. Frick, Kansas City.
5 *Operability of Uterine Cancer. F. J. Taussig, St. Louis.
6 Autoserotherapy in Two Cases of Subacute Cerebrospinal Meningitis, with Cure. O. H. Brown, St. Louis.
7 *Treatment of Gastroptosis. H. W. Soper, St. Louis.
8 Tuberculin as a Therapeutic Agent. J. C. Lyter, Moberly, Mo.

5. Operability of Uterine Cancer.—Of the eighteen patients subjected by Taussig to a radical abdominal operation, seven died as a result of the operation. Five succumbed within the first four days after operation; one died two weeks afterward; and in one patient death resulted from extensive suppuration

of the pelvic connective tissue four weeks after the laparotomy. This operative mortality of over 28 per cent. would, he says, under ordinary circumstances, be most appalling. If we remember, however, that Wertheim's primary mortality in his first series of twenty-nine cases was 42 per cent., and that Reuben Peterson had a primary mortality of 48 per cent. in his first fourteen cases, these figures are correspondingly not so bad. Dividing these eighteen cases into three groups, the early ones, the advanced ones and the far advanced ones, further light is thrown on this operative mortality. The early cases in which the disease did not extend beyond the uterus numbered three. All recovered from the operation and are at present free of recurrence. The advanced cases in which the disease had extended to the parametrium and vagina but did not yet occlude the ureters or deeply invade the bladder wall numbered seven. Of these five recovered and two died. The far advanced cases showed deeper involvement of the bladder wall or occlusion of one ureter, or extensive infiltration of the vagina and paravaginal tissues. They numbered eight, and five of these patients died. Of the three who recovered from the operation, two died of a recurrence within one year, and Taussig says he should be much surprised if the third will not likewise terminate fatally. He states emphatically that practically every case of cancer of the uterine body can be saved by operation unless there be gross carelessness on the part of the patient or the attending physician.

7. **Treatment of Gastroptosis.**—A modification of Rose's adhesive plaster bandage has given Soper much satisfaction, particularly in thin subjects whose abdomens are so depressed that a serious obstacle is presented to the adjustment of a proper support to the displaced viscera. The modification consists in the use of narrow (2-inch) strips. The pubic hair is thus avoided, and much less surface is covered than by Rose's bandage. The patient is therefore more comfortable and enjoys more freedom of movement. The method of applying the bandage is as follows: The patient sits on a couch, the adhesive strip is fastened to the dorsal vertebræ and follows the right lower rib margins; the patient now lies down, the lower abdominal contents are pushed upward with the operator's left hand while the bandage is carried across the abdomen and attached to the left side at Poupart's ligament. The patient again sits up and a second strip is applied to the other side in exactly the same way as the first one. Finally a third strip is attached across from one superior iliac spine to the other, the patient lying down. The bandage can be worn comfortably for two weeks. Bathing is not interfered with. It is easily removed by gasoline and benzine, or by oil of wintergreen. The bandage may be reapplied immediately, or in the event that irritation of the skin occurs, an interval of several days may elapse before replacing it. Special exercises of the abdominal muscles, accompanied by proper breathing, must be at once instituted. The diet should be as nutritious as possible, but in no class of cases is more individualization required. The food should be adapted to the patient's digestive powers.

Long Island Medical Journal, Brooklyn

December, V, No. 12, pp. 475-520

9 Chronic Catarrhal Deafness: Its Relation to Nasal Obstruction and Accessory Sinus Diseases. C. E. Scofield, Brooklyn.
10 Sporotrichosis. G. H. Turrell, Smithtown Branch, N. Y.
11 Surgery of Large Intestine. J. B. Bogart, Brooklyn.
12 Vaccine Therapy in Surgery. A. T. Bristow, Brooklyn.
13 Transplantation of Vas Deferens for Sterility in Men. G. M. Muren, New York.

Illinois Medical Journal, Springfield

January, XXI, No. 1, pp. 1-122

14 *Personal Experiences of Nephroptosis. W. Billington, Birmingham, England.
15 *Nephroptosis, Movable or Dropped Kidney. C. W. Suckling, Birmingham, England.
16 *Treatment of Puerperal Infection. L. W. Littig, Davenport, Iowa.
17 Treatment of Foreign Bodies in Esophagus. E. F. Ingals, Chicago.
18 Some Esophageal Cases. S. A. Friedberg, Chicago.
19 Some Diagnostic Signs and Symptoms of Brain Tumor. D. O. Hecht, Chicago.
20 *Subcutaneous Extirpation of Cervical Glands. J. Frank, Chicago.
21 Supravaginal Hysterectomy with Preservation of Function of Menstruation. C. H. Parkes, Chicago.
22 American Railway Relief Funds. W. H. Allport, Chicago.

14 and 15. Abstracted in THE JOURNAL Jan. 20, 1912, p. 227.

16. **Treatment of Puerperal Infection.**—The treatment of saprophytic intoxication is formulated by Littig as follows: (1) Meet the indications of local conditions in the perineum and in the vagina; (2) if the uterus be enlarged and the cervix, open irrigate and cleanse with the gloved finger; (3) if the uterus be contracted but the cervix open, irrigate; (4) if the uterus be contracted and the cervix closed, do not irrigate; (5) fresh air, support, elimination.

20. **Subcutaneous Extirpation of Cervical Glands.**—Frank does not recommend it for all cases of enlarged glands of the neck. For instance, suppurating glands with fistulæ or those that are undergoing an acute inflammation are not suitable cases for this sort of an operation. He does not advocate this method in preference to the open method for all cases. But he does recommend Dollinger's method of operating so as not to leave a visible scar in cases of enlarged glands of tuberculous origin which do not respond to any form of medical treatment, and cases erroneously diagnosed as tuberculous when they are not.

New Mexico Medical Journal, Las Cruces

December, VII, No. 3, pp. 67-106

23 Racial Question of Procreation in Tuberculous. F. T. B. Fest, Las Vegas.
24 Diagnostic Use of Tuberculin in Pulmonary Tuberculosis. G. E. Bushnell, Bayard, N. M.
25 Immunity in Tuberculosis by Inoculation of Living Tubercle Bacilli. G. B. Webb, Colorado Springs, Colo.
26 Auto-Inoculation in Pulmonary Tuberculosis. J. F. McConnell, Colorado Springs, Colo.
27 Blood-Pressure in Tuberculosis at High Altitude. L. S. Peters and E. S. Bullock, Silver City.
28 Public Measures in Prophylaxis of Tuberculosis. T. W. Colbert, Albuquerque.
29 Mixed Infection in Pulmonary Tuberculosis. R. B. Homan, El Paso.

Pennsylvania Medical Journal, Athens

January, XV, No. 4, pp. 253-338

30 Estimation of Vital Resistance of Patient with Reference to Possibility of Recovery. J. C. Bloodgood, Baltimore.
31 Influence of Various Anesthetics in Determining Mortality. G. M. Laws, Philadelphia.
32 *How Long Shall Patients Be Kept in Bed After Operation? R. T. Miller, Pittsburgh.
33 Prevention and Treatment of Complications in Gastro-Intestinal Surgery. D. Guthrie, Sayre.
34 Minor Postoperative Sequelæ. G. P. Müller, Philadelphia.
35 What Can Be Done to Preserve Strength of Surgical Patients During Stay in Bed? J. M. Baldy, Philadelphia.
36 Vein-to-Vein Transfusion for Anemia Due to Hemorrhage Caused by Disease of or Injury to Intra-Abdominal Organs. G. M. Dorrance and N. Ginsborg, Philadelphia.
37 Heart Stimulation in Treatment of Lobar Pneumonia. J. I. Roe, Wilkes-Barre.
38 *Value of Bacterins in Pneumonia. W. E. Robertson and G. M. Illman, Philadelphia.
39 Influence of Eustachian Tube in Purulent Otitis. M. D. Ritchie, Pittsburgh.

32. **How Long Shall Patients Be Kept in Bed After Operation?**—Miller regards it as being probable that enthusiasm for early rising after operation has warped better judgment; too little has been said in defense of conservatism along these lines. It does not seem rational to him to demand added effort of an already heavily burdened patient. He emphasizes that when we ourselves are tired, we rest; when medical patients evidence fatigue, we insist on rest and quiet; in the treatment of exhaustion, injury or febrile conditions, we enforce, first of all, the rule of rest; we are therein frankly recognizing a law of nature. We cannot make so critical a group as postoperative cases exempt from this law without incurring great risk. Rest is an essential element in postoperative care; the duration of its enforcement must be decided for each case as an individual, and not as a representative of this or that group, and in this decision there is frequently need for nice judgment. We cannot reduce it to a rule of thumb.

38 **Bacterins in Pneumonia.**—In some instances strikingly prompt and beneficent results follow the use of bacterins, but since these results are not uniform, the authors believe that something is lacking in the employment of dead cultures as at present practiced. They urge that care should be taken in their preparation, as it is probable that their biologic properties may be destroyed by the degree of heat used to kill them. A temperature not over 56 would be advisable, or 5

per cent. phenol in the proportion of ½ per cent. may be employed. Nephritis, when preexisting, is of grave prognostic import. Bacterins apparently do not exercise any influence, pro or con, on the renal condition. In the authors' series, the mortality was notably less in the cases given bacterins.

Medical Record, New York

January 27, LXXXI, No. 4, pp. 151-200

40 Sexual Disorders in Male Clinically Considered. E. Fuller, New York.
41 Latent Hypernephroma with Solitary Metastasis in Spine. A. E. Garrow and C. B. Keenan, Montreal.
42 *Pernicious Anemia Causing Spinal Cord Changes and Mental State Resembling Paresis. C. D. Camp, Ann Arbor, Mich.
43 Roentgenoscopy in Obscure Conditions of Colon. F. C. Yeomans, New York.
44 Cardiovascular Disease in Its Relation to Lesions of Abdominal Viscera. J. D. Dunham, Columbus, Ohio.
45 Pediatric Memoranda. H. B. Sheffield, New York.
46 Chronic Posterior Urethritis, Vesiculitis and Epididymitis in Men Beyond Middle Life. M. R. Parker, Chicago.
47 Abscess of Nasal Septum. I. W. Voorhees, New York.

42. **Pernicious Anemia.**—The examination in Camp's case pointed to lesions in both the posterior and lateral columns of the spinal cord; the former shown by the ataxia, Rombergism, sensory changes, and lost Achilles reflexes, and the latter by the spasticity and the positive Babinski reflex. The positive Babinski and spasticity would preclude the diagnosis of uncomplicated tabes, as would also the absence of any change in the pupillary reflexes, and the absence of any characteristic crises, lightning pains, and bladder disturbance. If a tabo-paralysis were thought of, Camp says one would still have to account for the absence of the Argyll-Robertson pupil and the negative Wassermann reaction. The negative findings in the cerebrospinal fluid were almost conclusively against the diagnosis of paresis or any syphilitic or parasyphilitic disease of the brain or spinal cord. There was no history obtainable of any toxic factor, such as lead or alcohol, as a cause of the spinal cord changes. The thoracic and abdominal organs were normal. The blood-pressure was 120. The examination of the urine showed no abnormal constituents. The blood examination showed red blood cells 2,900,000 per cmm., leukocytes 7,300, hemoglobin 80 per cent. The differential leukocyte count showed polynuclear 42 per cent.; large lymphocytes 17 per cent., small lymphocytes 12 per cent., eosinophils 6 per cent., mast cells 2, transitionals 3, degenerate type 18 per cent.

Journal of Cutaneous Diseases, New York

January, XXX, No. 1, pp. 1-52

48 *Blue Atrophy of Skin from Cocain Injections. W. S. Gottheil, New York.
49 Lupus Erythematosus. A. Ravogli, Cincinnati.
50 *Value of Lymph-Node Examination in Diagnosis of Syphilis. D. Friedlander, San Francisco.

48. **Blue Atrophy of Skin from Cocain Injections.**—Gottheil refers to the occurrence of atrophy with pigmentation, occasional and limited pigmentations without other change in the skin being sometimes seen after various forms of hypodermic medication. He has noticed them in several instances after the insoluble mercurial, hypodermic medication. It has been supposed that particles of steel from the needles might have become detached and entered the punctures, but this does not explain the rarity of the pigmentation as compared with the great frequency of the hypodermic morphin habit. Scores of habituates are seen every year, yet the pigmentation is a noticeable rarity. Another explanation is the introduction of particles of lamp-black into the puncture; this would only be likely to occur when sterilization by flaming was employed and none of the patients mentioned above did that. Some trials made by Gottheil's assistant seem to throw some light on the pigmentation herein recorded, though it leaves the atrophic changes unexplained. Morphin solutions allowed to remain in the lumen of the ordinary hypodermic needle over night, either dried up or came out as a clear drop in the morning. Cocain solutions, on the other hand, if any remained in the metallic channel next day, showed a distinct bluish tint. Gottheil suggests that this may be due to the action of the hydrochlorate on the metal on prolonged contact. It does not explain, however, either the atrophy or the blue pigmentation that in rare instances follows the morphin or the mercurial injections.

50. **Lymph-Node Examination.**—There is a universal glandular enlargement in syphilis, but the enlargement of certain syphilitic glands is more characteristic than others and they rank in the following order: Friedlander says that the proportion of enlarged glands decreases in direct ratio with the age of the infection. The bilateral glandular enlargements are of more significance than the unilateral. While the examination of the glands cannot be depended on, alone, for a diagnosis of syphilis, the enlargement of certain glands, particularly when bilateral, is of indubitable significance and the value of the gland examination is far more pronounced in the early stages of the disease than later.

Old Dominion Journal of Medicine and Surgery, Richmond, Va.

January, XIV, No. 1, pp. 1-64

51 Intra-Orbital Lesions Secondary to Disease of Accessory Sinuses of Nose. J. W. Walters, Lynchburg, Va.
52 Business Methods of Medical Profession. E. G. Moore, Elm City, N. C.
52 Season's Experience with Typhoid. F. H. Smith, Abingdon, Va.
54 Plea for Closer Association of Clinician and Pathologist. J. Grice, Portsmouth, Va.

Albany Medical Annals, N. Y.

January, XXXIII, No. 1, pp. 1-64

55 Psychotherapy in Organic Disease. J. J. Walsh, New York.
56 Modern Problems of Infant Feeding. H. L. K. Shaw, Albany.

Boston Medical and Surgical Journal

January 25, CLXVI, No. 4, pp. 115-154

57 Freud's Psycho-Analytic Method and Its Evolution. J. J. Putnam, Boston.
58 *Aneurysm of Thoracic Aorta Treated by Wiring. H. A. Christian, Boston.
59 Anaphylaxis in Its Relation to Pediatric Practice. G. R. Pisek and M. C. Pease, New York.

58. **Treatment of Aneurysm of Thoracic Aorta.**—Christian reports a case of thoracic aneurysm which seems to illustrate what may be expected from treating aortic aneurysms by the introduction of coils of silver wire, through which are passed for a limited time electric currents. This case appeared ideally suited for such treatment because the aneurysm was still small when detected; there were no evidences of other arterial disease, and the heart showed no evidences of organic lesion, and was not enlarged. The case appeared to be definitely one of aneurysm situated above the aortic valves since they apparently close without interruption. The aneurysm extended mostly to the right, either from the arch of the aorta or the first part of the innominate artery. A clear history of syphilis gave an etiologic cause. There was no evidence of pressure on the laryngeal or sympathetic nerves, or on the esophagus or trachea. The patient had constantly taken iodids so that a further treatment of iodid seemed unlikely to be of benefit. Nitrites were not indicated, since his blood-pressure was normal. Roentgen-ray examination confirmed the diagnosis of aneurysm, apparently involving the arch of the aorta. The aneurysm being exposed, a shallacked needle was inserted directly into the most prominent portion of the aneurysm. Eleven feet of silver wire were inserted and a current of ten milliamperes, faradic current, used for fifty minutes. At the end of this time the wire was cut off flush with the surface and the needle withdrawn. The patient returned to work and led an active life, apparently taking very few precautions to lessen the strain and stress that might be supposed to be of a nature to cause an enlargement of the aneurysmal sac. Symptomatic cure lasted six and one-half months. Then he fell, straining the arm and thorax, in May, 1908. This was followed by recurrence of symptoms and apparent enlargement of aneurysm. Aneurysm wired second time, June 30, 1908. Temporary improvement, followed shortly by exacerbation of symptoms and evidence of enlargement of aneurysm. Rupture of aneurysm, and death of patient, Aug. 27, 1908.

Vermont Medical Monthly, Burlington

January, XCIII, No. 1, pp. 1-26

60 Spinal Anesthesia. J. M. Allen, St. Johnsbury.
61 Wayward Girl. F. W. Sears, Syracuse, N. Y.
62 Surgical Treatment of Gall-Bladder Disease. A. Davidson, St. Albans.
63 Colon Bacillus Infection of Urinary Tract in Infants and Children. C. K. Johnson, Middlesex.

New York Medical Journal

January 20, XCV, No. 3, pp. 105-156

64 Dr. Edward G. Janeway. S. A. Knopf, New York.
65 Relation of Medicine to Law. J. H. Gleason, Manchester, N. H.
66 Two Unusual Cases of Uterine Myomata. A. Stein, New York.
67 *New Operation for Fixation of Kidney. F. M. Bell, Ottawa, Canada.
68 Diagnosis and Treatment of Congenital Pyloric Obstruction. H. Lowenburg, Philadelphia.
69 Hysterical Rabies. T. A. Williams, Washington, D. C.
70 *Indications for Prostatectomy and Advantages of Suprapubic Method. J. A. Gardner, Buffalo.
71 Plea for Establishment of Department for Conservation of Health in Hospitals and Dispensaries. M. J. Schoenberg, New York.
72 Kraurosis Vulvæ. C. F. Kivlin, Troy, N. Y.
73 Urine in Its Pathologic Relations to Gout. S. R. Klein, Valhalla, N. Y.
74 Movable Cecum. C. A. Roeder, Grand Island, Neb.

January 27, XCV, No. 4, pp. 158-208

75 Modern Conception of Medicine. R. C. Cabot, Boston.
76 *Gastric Symptoms in Biliary Disease. H. Lilienthal, New York.
77 Criminality and Morphinism. T. D. Crothers, Hartford, Conn.
78 Where Shall the Line Be Drawn Between Medicine and Surgery in Borderline Cases? J. E. Moore, Minneapolis.
79 Further Advances in Therapeutic Use of Bile Tracts. L. L. McArthur, Chicago.
80 Nauheim Treatment of Heart Disease; Essentials, Indications and Contraindications. H. Schoonmaker, Clifton Springs, N. Y.
81 Traumatic Dislocation of Both Hips. A. E. Chace, Tarrytown, N. Y.
82 *Arneth's Nucleo-Analytic Method as Applied to Eosinophils. J. F. Hultgen, Chicago.
83 Three Cases of Harelip and Cleft Palate in One Family. A. T. Howes, Lynn, Mass.
84 Case of Belladonna Poisoning in Child Seven Years of Age. R. E. Coughlin, New York.

67. New Operation for Fixation of Kidney.—In the procedure devised by Bell an incision 3 inches in length is made 2 inches external to the spinous processes of the lumbar vertebræ, vertically downward from the lower border of the twelfth rib, through the skin and fascia; the fibers of the outer portion of the erector spinæ are bluntly separated and the quadratus lumborum is incised. The transversalis fascia is incised carefully about 1 inch from its spinous attachment and the divided edges are caught with artery forceps. The kidney is then enucleated in the usual manner and the perirenal fat is excised posteriorly, internally and externally, but not inferiorly. It is important that the fat for at least half the depth of the kidney be removed. Two sutures, after the manner of Brödel, are now placed at either pole of the kidney at the internal and external borders, the needle being left on each. For the present these are not tied.

Two parallel incisions, 1½ inch in length and 1 inch apart, are now made longitudinally through the renal capsule and the intervening capsule is elevated from the cortex by blunt dissection. The kidney is now returned to its fossa and is held in position by means of gentle traction made by an assistant on the untied sutures. A strip of the transversalis fascia corresponding in width to the length of the elevated portion of the capsule, is now cut and passed as a strap beneath it and is sutured with chromicized catgut to the corresponding portion of the spinal attachment of the fascia. The kidney, now suspended by a strap of fascia, is further reinforced by passing the Brödel's sutures through the quadratus lumborum in the usual manner and tying them over the muscle. The wound is closed in the orthodox manner. The patient is kept in bed three weeks, until adhesions have formed between the fascia and the capsule and cortex of the kidney.

70. Prostatectomy.—The suprapubic operation is held by Gardner to be the ideal conservative one, because it is anatomically correct; the offending part is easier of access by this route; the obstruction is completely removed; control of the urine is regained with no dribbling; and the ejaculatory ducts are presumably not injured.

76. Biliary Disease.—Lilienthal calls attention to the importance of considering the probability of biliary surgical disease in all cases of chronic indigestion, the kind that persists for years in spite of skilful medical treatment. He urges that surgery be called in as a legitimate measure for relief a little earlier than is the custom with the great mass of the profession, and not merely as a last resort to record the failure of pure medicine.

82. Arneth's Nucleoanalytic Method.—Hultgen summarizes his views as follows:

1. The eosinophils show no progressive development from monomorphism to polymorphism, except in leukemic conditions.

2. The five classes of eosinophil nuclei occur constantly with remarkable uniformity under the most varied circumstances.

3. We may accept class C, containing a distinctly bilobed, or bipartite, nucleus as the normal eosinophil, as the one occurring constantly and with regular predominance in all persons, well or unwell.

4. Arneth's neutrophil picture is applicable to the eosinophils, but it merely indicates a constant percentage composition of the eosinophil contingent of the leukocytes.

5. Arneth's eosinophil blood-picture exists, but it is only a statistical fact and not of any practical biologic significance.

6. Ehrlich's theory that the adult eosinophil is derived from a prototypic eosinophilic myelocyte is not supported by my investigations. Commonly accepted criteria as to the youth of any given leukocyte must be amended.

7. The morphologic varieties of eosinophils depend on primordial, genetic causes. They are not a product of development.

8. Since the morphology of the nucleus bears little or no relation to the origin, size, age or function of these eosinophilic leukocytes, the nucleo-analytical method of Arneth lacks a biologic foundation, and is, therefore, not applicable to these cells.

Surgery, Gynecology and Obstetrics, Chicago

January, XIV, No. 1, pp. 1-114

85 *Arteriovenous Anastomosis in Treatment of Gangrene of Extremities. A. E. Halstead and R. T. Vaughan, Chicago.
86 *Fifty Fatal Cases of Puerperal Infection. H. M. Stowe, Chicago.
87 *Puerperal Infection. T. J. Watkins, Chicago.
88 *Hodgkin's Disease and Sarcoma of Cervical Glands. J. M. Blackford, Rochester, Minn.
89 Acute Edema of Cervix in Pregnancy; Report of a Case. C. E. Paddock, Chicago.
90 Cardiac Changes Secondary to Uterine Myomata. P. S. Doane, Chicago.
91 Richter's Hernia. C. S. White, Washington, D. C.
92 Obstetric Surgery at Preston Retreat. E. P. Barnard, Philadelphia.
93 *Suprapubic Prostatectomy, with Method for Control of Postoperative Hemorrhage. L. Freeman, Denver.
94 Cesarean Section. E. M. Prince, Birmingham, Ala.
95 Treatment of Harelip. T. W. Brophy, Chicago.
96 Esophagoscopy and Bronchoscopy. T. Hubbard, Toledo, Ohio.
97 *Repair of Fractures with Steel Splints. E. H. Beckman, Rochester, Minn.
98 Simple Photographic Apparatus for Immediate Record of Fresh and Fixed Macroscopic and Microscopic Sections. W. C. MacCarty, Rochester, Minn.
99 Surgical Knife on Safety-Razor Principle. F. H. Lahey, Boston.
100 Modification of Skene's Female Urethroscope. E. Garceau, Boston.
101 *Operation for Relief of Wrist-Drop and Allied Conditions. T. G. Davis and T. G. Finley, Los Angeles.
102 Use of Sphygmomanometer During Surgical Operations. H. K. Thoms, New London, Conn.
103 Excision of Internal Jugular Vein. J. W. Long, Greensboro, N. C.
104 Injuries to Elbow in Childhood, Studied in Relation to Development of Joint. W. S. Lawrence, Memphis, Tenn.

85. Abstracted in THE JOURNAL August 5, 1912, p. 505.

86. Fifty Cases of Puerperal Infection.—Stowe reports the occurrence of fifty fatal cases of puerperal sepsis in one hospital within twenty-nine months. Twenty-nine women in this series were hopelessly sick and fourteen seriously infected on their admission. More than one-half of the women had been sick less than ten days and they were hopeless from septicemia and general peritonitis. Of the remainder, all except seven were admitted when any chance to save them seemed lost. One case of embolism occurring in the hospital and two cases of postpartum hemorrhage before admission turned the scale against the patient. During their stay in the hospital, all patients were placed on an energetic stimulating treatment consisting of strychnin, digalen, alcohol and judicious feeding. Access to sun baths was possible in only a limited degree. Salines per rectum and by hypodermoclysis, epinephrin (adrenalin), antistreptococcic serum and collargol were used in several cases. In twenty-two cases, the women died within forty-eight hours after admission; eight within eight hours. Nine women presented clear signs of general and three of local peritonitis at the time of operation. In twelve cases, operation was followed by an immediate change for the worse and undoubtedly hastened the patient's death. In two cases, the patient collapsed from the anesthetic, while in two others the operation was unduly prolonged, lasting sixty-five and 125 minutes, respectively. Both these latter cases were complicated by peritonitis.

Attention is called to three general fundamentals which have a decided influence in governing the treatment of puerperal sepsis. 1. All local forms of infection are self-limited.

They tend to spontaneous recovery and require no intrauterine therapy except in the presence of hemorrhage. The great majority of septic cases are of this character and under proper treatment all should recover. The treatment is, decidedly, watchful expectancy. 2. By the employment of many common methods of treatment, a local or simple type of sepsis may be converted into a virulent and fatal condition. The curet, the septic fingers and the intrauterine douche are directly responsible for many deaths. 3. Our methods of recognizing septicemia in the early stages are uncertain. Before we are able to diagnose the condition, the invading process has reached a stage not amenable to local treatment and the patient frequently succumbs to the intensity of the toxemia.

Stowe has seen many cases of sapremic abortion with foul discharge and fever treated expectantly with excellent results. A sapremia associated with good drainage and uterine retraction is not to be feared and these conditions are secured by Fowler's position and ergot. Forced instrumental dilatation of the cervix in septic abortion is productive of great harm. It tears the tissues and creates new foci for infection. If it is desirable to dilate, packing is by far the best treatment. If the septic process has extended to the parametrium or peritoneum, a curettement of the uterus by the steel curet is a calamity. The instrument has no place in puerperal sepsis. If the infection has spread to the parametrium or peritoneum, therefore, it is best to leave the uterus alone whether empty or not. As a general principle, attempts to remove retained membranes from the uterus are often attended with more danger than their retention. Uterine irrigations are useless and dangerous. Collections of pus situated high up in the pelvis are best left alone until weeks or months after the acute process has terminated. In many cases, a non-operative form of treatment until definite localization has been determined will give as good results as any other. The author has experimented with the intravenous injection of the bichlorid of mercury in eleven undoubted cases of septicemia and lost only five patients. In the cases that recovered, the beneficial effects of the mercury were noticeable. In the others, no change was observed. The general treatment in all cases is of the greatest importance and consists of building up the depressed resistance of the mother.

87. **Puerperal Infection.**—The number of cases treated by Watkins in the last two years has been seventeen. The treatment consisted chiefly in the use of measures to increase the body resistance and thus hasten "immunity." The remedies employed have been much the same as used in cases of tuberculosis to increase the physiologic resistance. The treatment consisted chiefly in: 1. Raising the head of the bed to promote drainage. 2. Putting an ice-bag on the abdomen. 3. Giving a large amount of nutritious, easily digested food. 4. Administrating at least 2 quarts of fluids daily and otherwise forcing elimination. 5. Keeping the patients out of doors a part of each day when possible and giving sun baths. 6. Seeing that pain was relieved and that six to eight hours of sleep was obtained daily. The uterus was not disturbed except for hemorrhage or when a retained fetus, placenta, or decidua was known to be present. When present they were removed without the use of an anesthetic and without producing much traumatism. When the cervix was not well dilated the uterus, cervix and vagina were packed with sterile gauze to promote dilatation, to cause separation of the placenta or decidua and to stimulate spontaneous expulsion.

88. **Hodgkin's Disease and Sarcoma of Cervical Glands.**—It is maintained by Blackford that Hodgkin's disease, lymphosarcoma and tuberculosis, present three different pathologic pictures and run three different clinical courses, i. e., are probably three distinct entities, although early clinical differential diagnosis between chronic adenitis, tuberculosis, Hodgkin's disease and lymphosarcoma is practically impossible. While the advisability of radical surgical treatment of sarcoma or Hodgkin's disease may be questioned, yet in any case of doubt one or more glands should be excised and submitted to a competent pathologist. The prognosis is very grave in both Hodgkin's disease and sarcoma of cervical glands.

93. **Suprapubic Prostatectomy.**—Freeman packs the bleeding cavity with a long strip iodoform gauze, or gauze soaked in some styptic material. The end last inserted is retained in the grasp of a pair of large clamp forceps, preferably with a square, blunt end. The handles of these forceps project through the hole in the bladder and for some distance beyond the abdominal wound. Properly graduated pressure on the gauze packing by means of these forceps will control the hemorrhage. This pressure is readily obtained by passing an ordinary rubber bandage around the patient's body beneath the pelvis and over the notch between the locked handles of the instrument. Gauze pads are now adjusted about the handles in such a way as to incline them at any desired angle, thus regulating the direction of the pressure, which should not be greater than necessary, and the whole is held in place by adhesive strips and an ordinary bandage.

97. **Repair of Fractures With Steel Splints.**—The results obtained at Rochester with the use of the steel splint, Beckman says, have been uniformly better in all classes of cases than by any other method of open operation. Infection has taken place in a few instances, but has not been of a serious nature, although in a few cases it was necessary to remove the plate and screws at a later operation. But even in these cases they have found that the plate has held long enough to insure union. If the plate is close to the skin, the chances for its remaining permanently seem to be lessened. It is possible to plate even in infected cases and get union, but in these cases one must expect the plate to be finally removed and the wound should be provided with ample drainage. In no instance, up to the present time, have they failed to get union after plating a bone and the patients are much more comfortable after this method of fixation in fractures than any other method they have tried. The freedom from pain is often surprising.

101. **Relief of Wrist-Drop and Allied Conditions.**—The authors removed the synovial membrane and cartilage from the articular surface of the radius, the bases of the third and fourth metacarpal bones and from between the bones of the carpus involved in this operation. The radius was drilled from its posterior or upper surface obliquely downward into the articular space, both on the outer and ulnar side; the scaphoid, os magnum, semilunar and unciform bones were drilled in like manner, the third and fourth metacarpal bones being drilled transversely. Removal of bone from the more or less convex surface of the carpal bones by gouge and sharp curet was necessary, that they might pass a No. 20 bronze wire continuously through the outer drilling of the third and fourth metacarpal bones, the unciform and semilunar bones and the remaining perforation in the radius. The hand was then placed on a splint for support, in a position of exaggerated dorsal extension, slightly beyond what they desired to obtain. The wound was cleansed with hot water, the drilled bones adjusted, the wire drawn tightly, the ends being twisted over the lower end of the radius, bringing the denuded surfaces of the bones in close apposition, with the hope of obtaining union of bones. Callus and bone formed between the denuded surfaces, giving permanent support. The patient can rotate the forearm to a considerable extent; supination, however, is lessened by the bad position and other conditions at the point of injury above the elbow joint. He can approximate the thumb, index and little finger, has very good flexion of hand and fingers, with excellent grasping, holding and carrying functions. The authors claim that not only will this operation relieve traumatic wrist-drop, but those due to toxemias and cortical lesions; at least it will relieve the deformity.

American Journal of Surgery, New York

January, XXVI, No. 1, pp. 1-84

105 Gastrojejunostomy. W. J. Mayo, Rochester, Minn.
106 Colonic Intoxication. J. F. Binnie, Kansas City, Mo.
107 Surgical Aspects of Exophthalmic Goiter. G. W. Crile, Cleveland.
108 Practical Points in Surgical Treatment of Exophthalmic Goiter. A. J. Ochsner, Chicago.
109 Artificial Tendons and Ligaments of Silk in Surgical Treatment of Paralyses. N. Allison, St. Louis.
110 Operative Treatment of Fractures Based on Operation of Eighty Patients. W. Bartlett, St. Louis.

111 Nephropexy. J. H. Carstens, Detroit.
112 Treatment of Prostatic Obstruction. E. O. Smith, Cincinnati.
113 Treatment of Abscesses and Necrotic Foci Resulting from Injections of Salvarsan. A. Ravogli, Cincinnati.
114 Treatment of Foreign Bodies in Esophagus. E. F. Ingals, Chicago.
115 Drainage of Acute Pleural Empyema in Children. S. W. Kelley, Cleveland.
116 Arthritis Deformans. L. W. Ely, Denver.
117 Adenoma of Liver. H. Tuholski, St. Louis.
118 Acute Angulation and Flexure of Sigmoid; Causative Factor in Epilepsy, with Special Reference to Treatment. W. H. Axtell, Bellingham, Wash.
119 Uterine Cancer; Its Early Recognition by General Practitioner. J. C. Murphy, St. Louis.
120 Control of Bleeding in Brain Operations. J. R. Eastman, Indianapolis, Ind.

Ophthalmic Record, Chicago

January, XXI, No. 1, pp. 1-56

121 Six Diopter Meniscus Trial Lenses, Including Cylinders, Spheres, Prisms, Tints, Neutral-Kryptoks, Toro-Sphero-Cylinders, New Ring and Cross-Cylinder Device for Holding Them. J. N. Rhoads, Philadelphia.
122 *New Method of Making Film Preparations to Demonstrate Presence of Gonococcus. H. McKee, Montreal.
123 *Convenient Eye Bandage. Z. C. Layson, Hinton, W. Va.
124 Aid to Localization of Foreign Bodies in Eye. H. Gifford, Omaha.
125 Management of Non-Closure of Cataract-Operation Wounds. H. Gifford, Omaha.

122. **Film Preparations for Gonococcus.**—While searching for the trachoma bodies in the male urethra McKee examined a patient who was thought to be about cured of his gonorrhea. When a film was prepared so that the epithelial cells could be examined, masses of organisms identical in morphology with the gonococcus were found within them. Many of the cells had the cytoplasm completely filled. Two cases of ophthalmia neonatorum in the usual way gave negative results. In one cell only there were inclusions which from the clinical appearance of the conjunctiva McKee thought were gonococci. Films were then prepared after the method used in trachoma cases, so that the epithelial cells could be examined. With an ear curet the palpebral conjunctiiva was gently stroked and the material spread carefully over a glass slide. It was dried in the air, and fixed in 80 per cent. alcohol for ten minutes and then stained with Giemsa solution, 1 in 20 parts of distilled water, for twenty minutes. In each of these cases in which, by examining the pus, the results were negative, the epithelial cells were found crowded with biscuit-shaped diplococci. Hemoglobin agar, inoculated with discharge containing epithelial cells, gave a profuse growth of the gonococcus. The usefulness of this method of preparation has been verified in pneumococcus and diplobacillary conjunctivitis, although in the latter it is extremely rare for the old method to give negative results. Giemsa's new method of staining has also been found useful in these cases. The prepared slide is dried in the air and put in a petri dish and covered with staining fluid, which consists of equal parts of Giemsa stain and pure methyl alcohol, for thirty seconds. Enough distilled water is now poured in to cover the specimen, 10 to 15 c.c., which is agitated until a homogenous mixture is obtained. After three minutes the specimen is removed. McKee feels sure that this method of preparing films, showing the epithelial cells, will demonstrate the presence of the gonococcus in many cases, which by the old method would have been negative.

123. **Convenient Eye Bandage.**—The bandage used by Layson can readily be made from a piece of 2½ or 3-inch gauze roller bandage. Cut a strip sufficiently long to tie around the patient's head and split this at each end, leaving about 6 or 7 inches unsplit. Two tails are thus made on each end of strip. The two which are to be applied on the side of the closed eye should be slightly longer than on the side of the eye which is to be left open. To apply the bandage, place the unsplit part over affected eye and pass the two longer tails one above and one below the ear. Carry the other end of the bandage over the forehead above the unaffected eye to a point above the temple. At this point have the upper tail to cross over the lower one and then pass back under the occipital proturberance to be tied securely with the lower tail of the opposite side. The two remaining tails are then tied at a point well above the occipital protuberance. The cross prevents the bandage slipping up too far on the side of the eye left open.

Southern California Practitioner, Los Angeles

January, XXVII, No. 1, pp. 1-44

126 Hydrophobia: Report of Case. C. Francis, Los Angeles.
127 Prevention of Abortive Sequelæ. W. D. Boggs, Pasadena.
128 Value of Health Department in Los Angeles City Schools. A. W. Moore, Los Angeles.
129 Iowa Method of Room Disinfection. G. H. Sumner, Waterloo, Iowa.
130 Death in Mines of America: Reasons for a Federal Commission. J. R. Haynes, Los Angeles.

Southern Medical Journal, Nashville

January, IV, No. 12, pp. 863-932

131 Rural Sanitation. A. W. Freeman, Richmond, Va.
132 Panama Canal. H. M. Folkes, Biloxi, Miss.
133 Paralysis. J. W. Stevens, Nashville, Tenn.
134 *Maritime Quarantine Measures Adopted Against Introduction of Cholera, with Special Reference to Detection of Cholera Carriers During Summer of 1911. R. H. Von Ezdorf, Mobile, Ala.
135 Salvarsan; Its Administration 420 Times. E. G. Ballenger, Atlanta, Ga.
136 General Treatment of Syphilis. A. F. Toole and W. F. Scott, Birmingham, Ark.
137 Syphilis and the Eye. M. Feingold, New Orleans.
138 Eye Lesions and Salvarsan; Report of Cases. J. C. O'Gwynn, Mobile, Ala.
139 Faucial Tonsil; Anatomic Reasons for Its Capacity for Evil; Some Indications for Its Removal. W. G. Harrison, Birmingham, Ala.
140 *Surgical Treatment of Exophthalmic Goiter. G. Torrance, Birmingham, Ala.
141 New Prescription. O. Dowling, Shreveport, La.
142 Diphtheria. W. W. Harper, Selma, Ala.

134. **Maritime Quarantine Measures.**—Von Ezdorf emphasizes the fact that a bacteriologic standard rather than the clinical standard heretofore followed in maritime quarantine, is practicable and must be followed in dealing with cholera-infected vessels or persons, particularly of the steerage class, coming from cholera-infected countries where the disease prevails in epidemic form. He reviews the measures taken in New York City in 1911 to control the cholera situation.

140. **Surgical Treatment of Exophthalmic Goiter.**—The surgical treatment of exophthalmic goiter is endorsed. Torrance's personal experience is limited to a few cases operated on in the early stages, without mortality, with marked improvement, following operation.

Journal of Indiana State Medical Association, Fort Wayne

January, V, No. 1, pp. 1-58

143 Progress in Surgery During 1911. W. D. Gatch, Indianapolis.
144 Progress of Ophthalmology and Oto-Laryngology During 1911. G. F. Keiper, Lafayette.
145 Progress in Preventive Medicine for 1911. J. N. Hurty, Indianapolis.
146 Progress in Pathology and Bacteriology During 1911. J. P. Simonds, Indianapolis.
147 Efficiency of Medical Organizations. W. F. Howat, Hammond.

New York State Journal of Medicine, New York

January, XII, No. 1, pp. 1-54

148 *Indebtedness of Posterity to Pioneer Surgeon of Mississippi Valley. J. D. Bryant, New York.
149 *Roentgen-Ray Localization of Foreign Bodies. J. E. Blake, Brooklyn.
150 Spianchnoptosis and Its Relief. A. T. Little, Buffalo.
151 Uses of Thermo-Cautery and Radium as Palliative Measures in Uterine Cancer. W. B. Chase, Brooklyn.
152 Treatment of Surgical Tuberculosis. J. A. Macleod, Buffalo.
153 Treatment of Surgical Tuberculosis with Tuberculin. N. K. Macleod, Buffalo.
154 Use of Normal Serum in Hemorrhage. E. B. Probasco, Glens Falls.
155 Nasal Diphtheria. C. F. Burrows, Syracuse.
156 Etiology of Arteriosclerosis. H. L. Winter, Cornwall.
157 Psychology in Schools. L. Coville, Ithaca.
158 Tuberculosis of Choriold After Six Weeks' Treatment with Tuberculin. L. W. Crigler, New York.

148. Abstracted in THE JOURNAL Nov. 11, 1911, p. 1635.

149. **Roentgen-Ray Localization of Foreign Bodies.**—Blake's method is based on the physical law that light travels in a straight line and on the geometrical proposition that the corresponding sides of similar triangles are proportional to each other.

Lancet-Clinic, Cincinnati

January 13, CVII, No. 2, pp. 27-50

159 Mechanical Treatment of Intestinal Disease. R. K. Smith, Boston.
160 Accessory Sinuses of Nose. F. U. Swing, Cincinnati.
161 Steam Treatment of Acute Gonorrheal Conjunctivitis. J. H. Williams, Cincinnati.

January 20, CVII, No. 3, pp. 51-76

162 Cancer. F. Gaertner, Pittsburgh.
163 Surgery of Pericardium. B. M. Ricketts, Cincinnati.
164 Ancient Physicians and House Doctors. T. C. Minor, Cincinnati.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

January 13, I, pp. 75-138

1 *Relationship of Tuberculosis to Accident and Injury. W. C. Bosanquet.
2 *Sensory Disturbances from Cerebral Lesions. H. Head and G. Holmes.
3 *Rupture of Uterus. G. Blacker.
4 *Incidence of Mediterranean Fever in Malta and Its Relation to Size of Goat Population. J. W. H. Eyre.
5 Electric Metallic Colloids and Their Therapeutic Applications. B. G. Dihamel.
6 Treatment of Gonorrheal Conjunctivitis in Adult. J. S. Hosford and G. B. James.
7 Psychotherapy and General Medicine. W. P. S. Branson.

1. **Relationship of Tuberculosis to Accident and Injury.**—This subject is discussed by Bosanquet from the viewpoint generally accepted as correct, (1) that an accident or other injury may be the means by which tubercle bacilli are introduced into a person; or (2) that the injury may cause a weakening of natural resistance to the bacillus and thus permit it to establish itself when it would not otherwise have done so, or may lead to dissemination of the bacilli, thus giving rise either to a new focus of tuberculosis or to extension of one already existing.

2. **Sensory Disturbances from Cerebral Lesions.**—In this, the second paper of the series, Head and Holmes discuss the sensory disturbances associated with certain lesions of the optic thalamus. It is obvious that if all afferent impulses undergo a relay in the optic thalamus, a lesion at a point where they enter this organ may interrupt them before they have undergone regrouping; they may be cut off before they have undergone the thalamic junction and the loss of sensation would then correspond to that produced by a lesion of the midbrain, although the disease might lie in the optic thalamus. On the other hand, sensory impulses may reach the optic thalamus undisturbed and undergo characteristic changes in grouping; but the fibers which conduct them from the thalamus to the cortex may be interrupted by the lesion. Finally, since lesions of the optic thalamus are usually of vascular origin and tend to disturb anatomic areas rather than functional paths, they not infrequently interfere both with the impulses which enter the thalamus and with those which pass away from this organ to the cortex.

3. **Rupture of Uterus.**—Of the series of eight cases reported by Blacker, in two the tear was incomplete and in six complete. Of the former, one patient in whom the shock alone was treated, the condition remaining unrecognized, died, while the second recovered after plugging. Of the six cases of complete tears three patients died and three recovered. Of the fatal cases two patients were treated, while in the three successful cases the patients were all operated on, one by vaginal suture and two by hysterectomy. The total mortality was 50 per cent. The series of cases is too small to allow of any deductions being drawn, but it illustrated the frequency of this complication of labor—viz., 1 in 4,222 confinements—in an extern maternity department among the poor of London, and the cases are fair types of the different varieties of rupture of the uterus. Summing up the treatment of these cases as regards conservative treatment or laparotomy, Blacker says that while in cases of incomplete rupture gauze plugging or vaginal drainage may prove a useful method, in all cases of complete rupture the treatment most likely to give the best results will prove to be abdominal section, followed by the removal of the damaged uterus and the provision of efficient drainage for the peritoneal cavity.

4. **Mediterranean Fever in Malta.**—Eyre emphasizes that coincident with the adoption in 1906 of the recommendation of the Mediterranean Fever Commission that the use of milk from the Maltese goat should be prohibited, a striking diminution occurred in the case-incidence of Mediterranean fever on the naval and military forces stationed at Malta. He believes that the removal of infected goats and the consequent reduction are significant.

British Medical Journal, London

January 13, I, pp. 57-112

8 Evidences of Auricular Fibrillation Treated Historically. T. Lewis.
9 Effects on Heart of Soluble Digitoxin, Isolated Glucosid of Digitalis Group. R. Moore.
10 *Case of Cardiac Failure Treated by Cane Sugar. H. Dingle.
11 *Case of Obscure Fever with Pronounced Nervous Symptoms. J. M. Clarke and G. Scott-Williamson.
12 Use of Color Tests in Medical and Surgical Practice. W. M. Beaumont.
13 Relation of Corneal and Absolute Astigmatism. J. Rowan.
14 Administration of Oxygen. L. Hill.

10. **Treatment of Cardiac Failure.**—The case of cardiac failure treated by Dingle with cane sugar shows how remarkably an apparently hopeless case was benefited by its use. The patient, aged 28, suffered from a failing heart for about nine months due to his damaging his mitral valve by overexertion. From the time he first came under Dingle's care he was treated with all the various cardiac drugs, in variable doses, with absolute rest and suitable diet. He at times showed signs of improvement, but it was never lasting, and he went from bad to worse. He was tapped twice. Finally he was given 5 ounces of sugar a day. Only twice since he commenced the sugar has he taken any cardiac drugs and then only for a few days. He has never again required tapping. Dingle attributes his remarkably improved condition solely to the cane sugar.

11. **Obscure Fever with Pronounced Nervous Symptoms.**—This was a case of continued fever of obscure origin, running a course of a little over three weeks, with marked symptoms of disturbance of the nervous and also of the urinary systems. It appears to have been due to a leptothrix bacillus previously described as a pathogenic organism by Ritchie and McDonald, in cases met with during an epidemic of cerebrospinal meningitis. These cases were all fatal. The blood-count was worthy of special note. There was no leukopenia, the leukocytes being 8,000, but there was a relative increase of lymphocytes, the numbers per cubic centimeter being: Polymorphonuclears 3,760, small lymphocytes 2,320, large lymphocytes 1,280, transitionals 560, myelocytes 80. Eosinophils were absent in the count. The case is also another example of the value of lumbar puncture in a case of febrile illness with marked nervous phenomena. The discovery of the bacillus in the cerebrospinal fluid led in this instance directly to the elucidation of the cause of what was at the time a very obscure illness, and at that period so severe that it seemed likely to prove fatal.

Clinical Journal, London

January 3, XXXIX, pp. 193-208

15 Enlarged Cervical Lymph-Nodes. W. H. White.
16 Deaths of English Kings. J. Rae.

January 10, XXXIX, pp. 209-224

17 Mild and Latent Cases of Congenital Heart Disease. A. J. Jex-Blake.
18 Deaths of English Kings. J. Rae.

Medical Press and Circular, London

December 27, XCII, pp. 673-698

19 Femoral Hernia. W. H. Battle.
20 Treatment of Malignant Tumors by Secondary Roentgenization. F. Hernaman-Johnson.
21 Uterine Fibrosis and Allied Conditions. J. N. Stark.
22 Scopolamin in Normal Labor. A. J. Wallace.

January 3, XCIII, pp. 1-26

23 Practical Notes on Eczemas. L. Brocq.
24 Prostate, Prostatism and Prostatectomy. J. H. Nicoll.
25 Psychology of Salvarsan. A. V. Elder.

January 10, XCIII, pp. 27-52

26 Pleurisy with Effusion. R. W. Philip.
27 Thrombosis in Lymph Vessels in Septic and Carcinomatous Diseases. E. M. Corner.
28 *Immediate and Ultimate Results of Gastro-Enterostomy for Gastric and Duodenal Ulcer. L. A. Bidwell.
29 Unity in Medical Profession. J. E. Lane.

28. **Gastro-Enterostomy for Gastric and Duodenal Ulcer.**—Bidwell emphasizes that the operative treatment of gastric and duodenal ulcer has a lower mortality than treatment by medical means, as even in a series of unselected and complicated cases it is about 7 per cent. Operation effects a complete cure in over 70 per cent. of all cases, and in about 15 per cent. there is a varying amount of improvement and only about 5 per cent. are failures. When we consider the brilliant results of the successful cases, the small proportion of real failures and compare this with the results of medical treatment, he

says we need not hesitate to recommend operation in every case in which a duodenal ulcer has been clearly diagnosed, or a gastric ulcer has not been cured by medical means.

Australian Medical Journal, Melbourne

November 25, I, pp. 201-210

30 Eclampsia. R. H. Morrison.
31 Accidents of Football. W. Moore.
32 Treatment of Stammering. G. Leary.
33 Digestion in Stomach. S. W. Patterson.

December 2, I, pp. 211-220

34 Treatment of the Tuberculous in Private Practice. C. Bage.
35 Osmotic Pressure. J. L. Jona.

December 9, I, pp. 221-230

36 Radium in Dermatology. H. Lawrence.
37 Pulmonary Edema. P. G. Dane.
38 Iritis in Rheumatoid Arthritis. J. M. Baxter.
39 Volvulus of Small Intestine. N. McKenzie and J. Smith.

Practitioner, London

January, LXXXVIII, pp. 1-216

40 *Morbid Diatheses, with Special Reference to Arthritic, or So-Called Rheumatic Habit of Body. Sir D. Duckworth.
41 *General Treatment of Acute Rheumatism. I. B. Yeo and A. G. Phear.
42 *Treatment of Purulent Affections of Large Joints by Active and Passive Hyperemia. Bier and W. Raetzner.
43 *Diagnosis and Treatment of Rheumatoid Arthritis and Other Forms of Infective Arthritis. A. P. Luff.
44 *Gonorrheal Rheumatism. W. Murrell.
45 *Cardiac Manifestations of Acute Rheumatism. L. Smith.
46 *Torticollis or Wry-Neck. A. H. Tubby.
47 *Drugs in Rheumatic Conditions. R. Stockman.
48 Cutaneous Affections in Rheumatic Conditions. J. Galloway.
49 Muscular Atrophy in Rheumatism. P. Stewart.
50 Rheumatism in Children. A. M. Gossage.
51 Diagnosis Between Rheumatism and Gout. A. W. Sikes.
52 Cerebral Rheumatism. C. Coombs.
53 *Relation of Diseases of Mouth to Rheumatism. K. Goadby.
54 *Diet in Rheumatic Affections. L. J. Llewellyn.
55 Treatment of Rheumatism by Electricity. N. S. Finzi.
56 Roentgen-Rays in Treatment of Rheumatoid Arthritis. C. Williams.
57 Treatment of Sciatica by Means of Intraneural Injections of Saline Solution. A. G. Hay.
58 Radium Water and Radio-Oxygen Therapy in Rheumatism. W. Armstrong.
59 Treatment of Rheumatism at English Spas. L. Calthrop.
60 Treatment of Rheumatism (and Certain Forms of Arthritis) at Foreign Spas. R. F. Fox.
61 Treatment of Rheumatism by Injection of Magnesium Sulphate. A. B. Jackson.
62 Thyroid Extract in Rheumatoid Arthritis. W. J. Mildelton.
63 History of Present-Day Accepted Etiology of Acute Rheumatism. A. Mantle.

40. **Morbid Diatheses.**—Several distinct morbid diatheses are recognized by Duckworth. First, the arthritic, or, as it is sometimes, but not appropriately, termed the rheumatic diathesis; second, the strumous or scrofulous diathesis; third, the bilious; and fourth, the nervous. Subjects of the arthritic diathesis present several peculiarities. In early years there is often no appearance of any delicacy. The general development is satisfactory. Some defects may be noted in the vascular system, such as dilatation of the facial capillaries, with languid circulation in small vessels, leading to cold extremities and tendency to chilblains; and sometimes we meet with patches of erythema or dry eczema. Pains in various joints and in the lower limbs, regarded as "growing pains," are frequently to be noted. Sore throat with recurrent tonsillitis is specially common, and the fauces are believed, with good reason, to be a site of lodgment of the specific germs of rheumatic infection. Arthritis more or less acute is apt to occur, sometimes with pyrexia or in other instances without any febrile movement. There is a special liability to receive and encourage the development of the specific toxin (due to a diplococcal microbe) of rheumatism. Up to the age of 35 there may be one or more attacks of rheumatic fever. Other varieties of arthritis occur in these susceptible individuals from tender to advanced ages, dependent in many cases on toxic infections from without (exogenous), or from within, as in the case of gout (endogenous metabolic toxins). In instances of chronic septicemia, there is a greater tendency in persons of this habit to suffer from arthritis than is the case in others. Many of the manifestations of rheumatism are abarticular and declare themselves in various textures and hence we meet with several forms of erythema, with nodules and purpura. Carditis in all its forms, meningitis, cerebral and spinal, and chorea come into this category. In the case of chorea (cerebral rheumatism) we are in the presence of blended rheumatic and nervous habits. The lymphatic and glandular systems appear to be singularly immune from rheumatic influences. So much is this the case that in any well-marked young rheumatic subject, the occurrence of sensitive, irritable or swollen glands should suggest a strumous strain blended in the constitution.

41. **Treatment of Acute Rheumatism.**—The chief indications in the treatment of acute articular rheumatism, according to Yeo and Phear are as follows: (1) To endeavor to cut short the course of the attack and thereby to lessen the danger period during which there is the risk of cardiac complications. (2) To relieve the joint pains and other distressing symptoms. (3) To meet any complication which may arise, and specially to be ready with the promptest treatment in the event of hyperpyrexia. (4) To guard against the danger of relapse by prolonging treatment beyond the period of symptoms and by special supervision during convalescence. The treatment includes rest in bed, cathartics, fluid diet, alkalies and salicylates.

42. **Treatment of Purulent Affections of Large Joints.**—All forms of pyemic affections of the joints, whether a traumatic suppuration, a collateral inflammation, or a metastatic suppuration of the joint, the authors claim furnish most favorable ground for treatment by hyperemia. Of the bacterial forms, the gonorrheal affection of the joints claims chief interest, because in the treatment of these hyperemia has achieved its most famous therapeutic triumphs, above all in the acute phlegmonous variety. This is specially characterized by intense pain, and exhibits the gonorrheal metastasis in by far the most abundant and most malignant form. Passive hyperemia is for such cases greatly superior to all other remedies. By virtue of the increase of the inflammatory curative powers a quick, certain and finally complete cure is obtained in the shortest time with full possession of the functions of the joint. Passive movements, carried out as early as possible, quickly allay the reflex muscular contractures, combat atrophy and prevent adhesions in the joint; in short, they are the requisites for preserving the functions of the joint. Gonorrheal joint-affections of long standing also soon lose their painfulness by hyperemia, and, if not already damaged beyond repair, can be cured with restoration of function.

43. **Treatment of Rheumatoid Arthritis.**—The term "rheumatoid arthritis" is objected to by Luff, as suggesting a causal connection with rheumatism. He prefers the name "arthritis deformans." He says that every effort should be made to discover the primary source of infection, and, if found, to remove it; this especially applies to those cases which are secondary to pyorrhea alveolaris. The mouth, tonsils and nasopharynx should be carefully examined; otitis media should be treated if present; the lungs examined for the presence of bronchiectasis; the intestinal tract should receive attention, especially as regards dysentery and colitis; the genito-urinary organs must be carefully investigated; and any source of infection, such as an open sinus, should receive suitable treatment. In most cases of infective arthritis an attempt should be made, when possible, to discover the responsible organism, and, if found, to employ an autogenous vaccine. The drugs that Luff has found most useful in the treatment of rheumatoid arthritis are guaiacol and potassium iodid. The most convenient form of administering the guaiacol is the carbonate in cachets. At first from 5 to 10 grains of the carbonate of guaiacol should be given three times a day, and the dose should be increased by 1 to 2 grains each week until from 15 to 20 grains are being taken in each dose. It is essential that this treatment should be continued for at least twelve months. The beneficial effects of the guaiacol are increased by administering at the same time a mixture containing 10 grains of potassium iodid in each dose; the depressing effect of the iodid should be counteracted by its combination with tonics.

44. **Gonorrheal Arthritis.**—The only effective method of treating gonococcic arthritis in Murrell's opinion is by vaccine therapy using an autovaccine. In some cases he has used large doses, even up to 500,000,000, every three or four days. It is said that the dose for the urethritis should be 75,000,000, for the iritis 250,000,000, and for the arthritis 500,000,000, but Murrell does not endorse the action of the medical man

who gave an initial dose of 825,000,000. He agrees with Hartwell, who finds that autogenous vaccines are valuable in all stages of gonococcic arthritis except when ankylosis has occurred. He cites a case of gonococcic arthritis in which heterovaccines and autovaccines carried out for a long period and with the most careful attention to detail failed to effect an improvement. A surgeon was requisitioned, who by dilation of the urethra under an anesthetic removed the focus of infection, and allowed the antidotal treatment to exert its influence.

45. **Cardiac Manifestations of Acute Rheumatism.**—Two propositions are put by Smith. (1) Can we prevent heart trouble in acute rheumatism? Unfortunately, No. (2) If it occur, can treatment do anything to curtail or prevent serious or permanent trouble? Undoubtedly, Yes. He says that heart trouble is not to be regarded as a complication in rheumatism; it is part of the attack. It has been maintained that the heart is implicated in every case, usually as a myocarditis. Be this as it may, there can be no doubt that in many cases the inflammation of muscle or valve is temporary, and the structure recovers without damage. Analogy suggests and experience supports such a view. Many hearts are affected, some get well. Rest, salicylates, counterirritation, simple "resistance exercises," relief of pain, and a course of iron and arsenic usually comprise the treatment.

46. **Torticollis.**—Stiff neck, with temporary inability to move the head is regarded by Tubby as occurring in local conditions, such as acute and chronic rheumatism. If the affection be acute and some pyrexia be present, a purgative should be given, succeeded by appropriate doses of salicylate of soda or by 5 grains of acetylsalicylic acid every six hours. An ointment containing menthol-methyl salicylic acid may be rubbed in and the part kept covered. When the acute tenderness is lessening, gentle manual massage for a few minutes twice a day is useful, or the mechanical form of massage, by vibratory movement, is very soothing. In the more chronic forms the internal administration of iodid of potassium and the local application of linimentum belladonæ cum chloroformo, with frequently repeated massage are called for. If the affection is obstinate, radiant heat may be employed and the best form is that derived from an electric lamp of 1 to 500 volts. Care, however, must be taken in its use, as the skin is easily scorched.

47. **Drugs in Rheumatic Conditions.**—Salicylic acid, Stockman says, is undoubtedly the most powerful antirheumatic drug known to us, and the action of all salicyl compounds depends on the extent of their conversion into it in the body. Of these compounds salicin, acetylsalicylic acid, salol and methyl salicylate are of most clinical importance. Salicin has a bitter taste, and is much less nauseous than sodium salicylate, and can be conveniently given dissolved in hot water in which it is fairly soluble. It only yields 43 per cent. of its weight of salicylic acid, and hence the amount required is at least double that of sodium salicylate, 20 to 30 grains every hour or two hours until 1 ounce has been given and then in smaller doses according to the circumstances. Acetylsalicylic acid is very active and has a marked analgesic effect. It cannot be prescribed with alkalis which decompose it, and hence it is apt to bring on nausea and vomiting if given continuously. Methyl salicylate is also very apt to irritate the gastric mucous membrane, but in 10- to 20-minim doses up to 60 or 90 minims per day, given in emulsion, or on sugar, or in milk, it acts powerfully, and externally applied it is unrivaled for its analgesic action in rheumatic conditions. Salol and salicylate of quinin are antirheumatics only to the extent of their salicylic acid content, which is roughly about one-half in each case; their value in acute conditions is therefore small. Sodium benzoate has the same specific effect as the salicylate, but exerts a less powerful and decided influence. On the other hand it is practically nonpoisonous and has no disturbing side-effects. It can be given in 20-grain doses every two or three hours with satisfactory results in cases of uncomplicated rheumatic fever, but its practical usefulness is merely as a substitute for the more powerful salicylate when the latter cannot be tolerated.

53. **Diseases of Mouth and Rheumatism.** — Goadby's researches have been directed to determining the special mouth organism causally associated with various arthritic symptoms; mouth disease or oral sepsis, to use a generalized term, were so frequently complicated with chronic arthritic changes that the clinical association appeared undoubted. Typical cases were, therefore, selected and the bacteria isolated from the oral secretions and tested on animals for virulence, by intravenous, subcutaneous and intraperitoneal injections. In some cases the animals died from generalized infection; in others pus formation and local abscesses were produced, but no rheumatic symptoms appeared. Considerable difficulty was at first experienced in devising a suitable culture medium, as well as a proper standard of alkalinity for the growth of all mouth organisms. Finally, this obstacle was overcome and the majority of the bacteria obtained in pure culture. A series was then tested against the blood of the patients and those organisms regularly showing alteration in the opsonic index were selected. Inoculations were made with these into the joints (knee) and into the peri-articular tissue of rabbits. One type of organism produced chronic swelling of the synovia and membranes, while in a few instances, definite bony changes followed. The organism obtained from the majority of the mouth lesions in arthritic cases and which produced these changes in the joints of inoculated animals is a streptobacillus, which Goadby has provisionally termed the *Streptobacillus malæ*. It resembles in its morphology, but not in its cultural characters, the streptobacillus described by Ducrey as the cause of soft chancre. In many ways the organism resembles a streptococcus, but is easily differentiated from the streptococci by its morphology and cultural characteristics. Goadby is convinced that diseases of the gums account for a certain, perhaps a very large, number of cases of arthritis, namely, those of apparently bacterial origin with no obvious infective focus. Lambert states that in 172 cases of rheumatoid arthritis where special enquiry was made for an infective focus, 141 of the patients (76 per cent.) had badly decayed teeth or the teeth had dropped out.

54. **Diet in Rheumatic Affections.**—Obesity is regarded by Llewellyn as the direct complication of osteo-arthritis, and to neglect its treatment is to court failure. On the other hand, the prevention or timely reduction of excessive corpulence enhances the sense of well-being, improves often markedly the walking powers, diminishes articular pain, and, in Llewellyn's opinion, should form the groundwork of our therapeutic efforts to control or arrest the march of the underlying morbid process.

Annales de l'Institut Pasteur, Paris

December, XXV, No. 12, pp. 865-959

64 *Experimental Research on Vaccination Against Typhoid. (Des vaccinations antityphiques.) E. Metchnikoff and A. Besredka.

65 Enhancing Resisting Power of Trypanosomes. (De la préparation de races de trypanosomes résistantes au sérum de cynocéphales et au sérum humain.) A. Lebœuf.

66 Absorption of Diphtheria and Tetanus Toxin by Nerve Substance and Resulting Phenomena. (Etude biologique et chimique de l'adsorption des toxines diphtérique et tétanique par la substance nerveuse et des phénomènes corrélatifs.) G. Laroche and A. Grigaut.

67 Bacteriologic Study of Pleuropneumonia. (De l'étiologie de la péripneumonie.) E. J. Martzinovski.

68 Hemolytic Power of Streptococci. (Du pouvoir hémolytique des streptocoques.) F. Jupille.

69 Influence of Iron on Growth of Molds. (Influence du fer sur la culture de quelques moisissures.) B. Santon.

64. **Experimental Research on Vaccination Against Typhoid.**—Vaccines made with killed bacilli failed to protect the chimpanzee against typhoid infection in the research reported by Metchnikoff and Besredka. They found further that the typhoid bacilli voided by a chronic bacillus carrier were pathogenic for the laboratory animals but not for the chimpanzee, and these avirulent bacilli were unable to protect the chimpanzee against typhoid from ingestion later of virulent typhoid bacilli. On the other hand, a single attack of true typhoid always rendered the chimpanzee immune to new infection. Vaccination with living microbes is the only way, they assert, to confer solid immunity. They found that the paratyphoid bacillus B was able to vaccinate against typhoid on condition that it was administered in a very large dose, entailing an intense febrile reaction.

Annales des Maladies des Org. Génito-Urinaires, Paris

December 1, XXIX, No. 23, pp. 2113-2208

70 Phosphaturia and Oxaluria. J. Teissier.
71 *Immediate and Remote Results of Prostatectomy for Hypertrophy of the Prostate. R. Proust, E. Zuckerkandl and H. H. Young.

71. Remote Results of Prostatectomy.—Proust insists that the ultimate outcome of prostatectomy was incomparably better when the Freyer technic was applied, and that the perineal technic should be used only when the transvesical route is contra-indicated. He admits that postoperative stricture is extremely rare after the perineal operation, while with the Freyer technic there is liable to be a kind of valve formation impeding urination unless care is taken to prevent this.

Zuckerkandl also advocates the superiority of the suprapubic operation over the perineal, notwithstanding its higher mortality. The sexual functions are seldom impaired by the suprapubic operation, he says, while impotence has followed the perineal operation in a few isolated cases. He bases his conclusions on ninety-four personal cases; the mortality with the perineal technic was 9.5 per cent. and with the suprapubic, 18.7 per cent. The health was seriously undermined, besides, in a number of cases by fistulas and incontinence of urine after the perineal operation.

Young, on the other hand, lauds the conservative perineal technic, both for the immediate and remote results, and reports eighty-five Bottini, forty-five suprapubic, and the rest perineal operations in 450 cases of hypertrophied prostate requiring operative relief.

Archives de Médecine des Enfants, Paris

January, XV, No. 1, pp. 1-80

72 *Infantilism. M. de Biehler.
73 Ancient Work on the Diseases of the Newly Born. (Un livre sur les maladies des nouveau-nés écrit vers 1472.) E. Apert.
74 *Acute Osteomyelitis in Infants. (Osteomyélite aigue du maxillaire supérieur chez le nourrisson.) R. Français.
75 *Chronic Invagination of the Intestine in Boy of 4 Mistaken for Dysentery. J. Comby.

72. Infantilism.—The boy of 12 in the typical case reported had rachitis, anemia, tuberculosis and a valvular defect; his development was scarcely that of a child of 6 and de Biehler analyzes the case as a striking example of what she calls *insuffisance pluriglandulaire*, several of the ductless glands being evidently insufficient.

74. Osteomyelitis in Infants.—Français reports three cases of acute osteomyelitis of the upper jaw in infants under five months old. In eighteen cases cited from the literature the age was also under nine months. The moment the lesion is diagnosed, it should be treated at once by opening an outlet for the pus, etc. As the infection occurs by way of the germs of the teeth, the lesion should be attacked through the mouth, curetting through the mouth and cleansing the cavity, draining with a wick of gauze. The development of the teeth later depends on the promptness and thoroughness of the operation; two of his little patients soon recovered but the third was only a few days old and weakly, and the osteomyelitis was so extensive that the child succumbed not long after the operation.

75. Invagination of the Intestine Mistaken for Dysentery.—The child of four had diarrhea, melena, pain and vomiting for three weeks; then peritonitis developed, fatal in a week. Treatment had been on the diagnosis of dysentery, with serotherapy, etc., but necropsy revealed invagination of the colon although during life the palpation findings had been negative.

Journal de Chirurgie, Paris

November, VII, No. 5, pp. 509-652

76 *Mobilization of Skin Over Large Areas to Repair Gaps Elsewhere. (La mobilisation tégumentaire par décollements très étendus et ses applications à la chirurgie réparatrice.) H. Morestin.

76. Mobilization of the Skin to Repair Gaps Elsewhere.—Morestin states that it is possible to detach the skin and mobilize it over extensive areas, permitting almost incredible mobilization of great extents of the skin without impairing its vitality in the least. His attention was attracted to this possibility by observing the unimpaired vitality of the skin after trauma inducing extensive effusion of blood and serous fluid under the skin, lifting it up over large areas and thus separating it from its attachment to the tissues below. The vessels passing into the skin must have been all broken off, and yet when the effusion was drained away the skin settled back into place and the circulation continued unhampered. The same occurs when the surgeon separates the skin for a distance of 10, 20 or 30 cm. around a wound; he need not hesitate to loosen up the skin by cutting with bistoury or scissors all the cellular connections uniting the derma to the superficial aponeuroses, keeping as close as possible to the outer layer of the superficial fascia. If there is much fat, the separation can be made through the adipose tissue. The derma itself must be carefully guarded from injury, keeping always the same distance from its lower surface in snipping its attachments. There is usually very little bleeding; he packs the space with sponges as he goes along; ligation of a vein is only exceptionally required. When the derma has thus been loosened up all around, the skin is a floating, stretchable and adaptable substance that can be drawn up to cover almost any defect without much traction. The skin adapts itself to its new bed and heals in place with a completeness and rapidity unknown elsewhere. Morestin reports a number of cases with illustrations to show the ease and simplicity with which the skin was thus loosened up from high in the neck and down on the arm to the iliac fossa below and over on the back or other mamma at the sides, after excision of a mammary cancer. The trace of the operation left was only a straight linear scar running from just below the other mamma to just beyond the axilla. In another case a large cancer on the cheek was removed with no trace of disfigurement except a straight linear scar under the chin with a horseshoe scar enclosing one cheek.

Lyon Médical, Lyons

December 31, CXVII, No. 53, pp. 1473-1536

77 Pathologic Anatomy of the Nervous System. Its Rôle and Its Limits in the Study of Nervous Disease. IV. (L'anatomie pathologique élementaire du système nerveux.) L. Bériel.

Revue de Gynécologie, Paris

December, XVII, No. 6, pp. 497-600

78 *Abscess in the Liver During or Closely Following Pregnancy. (Les grands abcès du foie pendant la grossesse et les suites de couches.) G. Chavannaz and E. Loubat.
79 Colitis with Perforation of Sigmoid Flexure; Three Cases; Recovery. (Des sigmoidites perforantes.) V. Pauchet.
80 Case of Diffuse Cancer of the Stomach. (Linite plastique généralisée.) E. Chambard.

78. Abscess of the Liver in Connection With Pregnancy.—Chavannaz and Loubat report a case in detail, the large solitary abscess developing in a woman of 32 who had been delivered of a dead seven-months fetus over three months before the operation on the liver. She had had severe eclampsia at the time and there had been signs of some trouble in the liver during the three months, but digestion had been normal and there was no jaundice or radiating pain. The liver region protruded and considerable collateral venous circulation was evident. The operation released over a quart and a half of thick brownish pus, the cavity in the liver was merely swabbed dry and drained, and rapid recovery followed. Four other cases are reported from the literature; in each the abscess occurred during the pregnancy or at term; three of the women died soon after, but two of the infants survived. The abscess was a single large one in all but one of the five cases. Both of the women survived in the two cases in which an operation was done. The main point in such cases is to bear in mind the possibility of an abscess of the liver when confronted with puzzling symptoms during or soon after a pregnancy. In the five cases reported the diagnosis was presumptive in one case, confirmed by the operation; in another case the diagnosis had been positive, but in the three other cases pleurisy or pleuropneumonia had been diagnosed.

Archiv für Gynäkologie, Berlin

XCV, No. 2, pp. 349-550. Last indexed Dec. 16, 1911, p. 2031

81 Functioning of the Ovaries. (Zur Physiologie und Pathologie der Ovarialfunktion.) L. Adler.
82 Young Human Embryo. (Ein junges menschliches Ei.) R. Todyo.
83 Importance of Creatin for the Metabolism of the Uterus. (Bedeutung des Kreatins für den Stoffwechsel des Uterus.) W. Rübsamen and R. Guslkoff.
84 *Estimation of Losses of Blood in Obstetrics and Gynecology. (Praktische Ergebnisse einer klinischen Methode zur quantitativen Bestimmung von Blutverlusten in der Geburtshilfe und Gynäkologie.) W. Rübsamen and G. Charlipp.

85 Cause of Rupture of Pregnant Tube. (Ursache der Ruptur gravider Tuben. Pathologische-anatomische Studie mittelst plastischer Rekonstruktion nach Born.) M. Klutsi.

84. **Estimation of Obstetric and Gynecologic Losses of Blood.**—Rübsamen and Charlipp have been estimating the amount of blood lost at normal and pathologic deliveries. The means by which they estimate the amount is to collect all the cloths, aprons, sponges, compresses, etc. soiled with blood, and the placenta, and rinse them until all the blood has soaked out into a given amount of water. The hemoglobin content of the rinsing water is then determined with Sahli's hemometer and compared with the hemoglobin content of the patient's blood recorded before and after. They give a simple formula to calculate the c.c. of blood lost by comparing the hemoglobin content in this way, and commend the method as very convenient and exact enough for practical purposes. They tabulate the findings in nineteen obstetric and ten pelvic operative cases. With a normal birth, the blood lost ranged from 246 to 772 c.c. with an average of 438 c.c.; with perineal tears the amount rose by 150 c.c. With placenta prævia the total after entering the clinic was 1,445 c.c. in one case. In another the total loss of blood was 1,158 c.c., of which 350 c.c. was in the placenta. In a case of Cesarean section, the bleeding was not regarded as excessive, but estimated by this exact method it was found that the woman had lost 1,530 c.c.; 571 c.c. was lost by one patient during curetting, amputation of the portio and ventral fixation; 346 c.c. with a supravaginal amputation, and 308 c.c. with a Schauta-Wertheim operation. The lesson taught by the research reported is the danger to which women are exposed from the loss of such large amounts of blood during delivery. A childbirth, they remark, is evidently a process just at the borderline between the physiologic and the pathologic.

The following is their formula: A = the average between the hemoglobin content of the woman's blood taken before and after the loss of blood; B = the amount of rinsing water containing the blood lost; C = the hemoglobin content of 20 cubic millimeters of the rinsing water, and X = the unknown amount of the blood lost. As with increasing dilution the hemoglobin content in a given quantity grows smaller, then X is to B as C to A

$$X : B = C : A$$

Transposing this, we have

$$X = \frac{B \times C}{A}$$

If A equals the half of 71 + 69 (the woman's hemoglobin proportion before and after the loss of blood), and B equals 1,000 c.c., then we get the equation

$$X : 1{,}000 = 7 : 70$$

$$\text{Hence } X = \frac{1{,}000 \times 7}{70} = \frac{7{,}000}{70} = 100 \text{ c.c.}$$

Berliner klinische Wochenschrift

January 8, XLIX, No. 2, pp. 1-96

86 *Pyogenic Infection of the Kidneys. (Die pyogene Niereninfektion.) A. Tietze.

87 Dosage of Roentgen Rays. (Zur Methodik der qualitativen Strahlenmessung in der Röntgentherapie.) H. Meyer and H. Ritter.

88 *Conglutination Fixation of Complement Test. (Konglutinationsreaction nach Karvonen.) H. Hecht.

89 Safranin in Treatment of Experimental Trypanosomiasis. (Zur medikamentösen Behandlung der künstlichen Trypanosomeninfektion, Tryp. Brucei.) L. Brieger and M. Krause.

90 Rectal Temperature During Hydrotherapy. (Temperaturmessungen im Darm mit dem Fieberregistrierapparat von Siemens u. Halske bei verschiedenen hydrotherapeutischen Maassnahmen.) Schemel and Eichler.

91 Experimental Inoculation with Poliomyelitis in Vaccine Pustule. (Experimentelle Untersuchungen über Poliomyelitis.) O. Thomsen.

92 *Auscultation at the Mouth. (Oralauscultation.) K. Takata.

93 Cancer of the Sympathetic Nervous System. (Das Ganglioma embryonale sympathicum.) L. Pick. Commenced in No. 1.

94 Duodenum Tube. (Duodenalsonde.) P. Lazarus.

95 *Extraction of Intercostal Nerves in Treatment of Tabetic Gastric Crises. (Nervenextraktion bei gastrischen Krisen.) F. Franke.

96 Advantages of Puncture in Treatment of Tuberculous Peritonitis. (Zur Therapie der Peritonitis tuberculosa.) M. Klotz.

97 *Prophylaxis of Scarlet Fever and Diphtheria Among School Children. (Zur gegenwärtigen Scharlach- und Diphtherieepidemie in Gross-Berlin.) M. Westenhoeffer.

98 Necropsy Findings in the Poisoning Cases at the Berlin Municipal Shelter. (Die anatomischen Befunde bei den Vergifteten des Berliner Asyls für Obdachlose.) P. Fraenckel.

86. **Pyogenic Infection of the Kidney.**—Tietze discusses the various modes of infection, citing a number of typical cases. In two cases the kidney affection was secondary to gangrenous appendicitis and a number of small abscesses were found in the kidney parenchyma; there was no pain and the bladder urine showed no signs of blood or pus and no urine dribbled from the exposed kidney. In three other cases of febrile pyelonephritis there was pain only in one and then in the form of colics. The urine was apparently normal in all for a long time and only gradually did one kidney become enlarged. The diagnosis in such cases is peculiarly difficult, but differentiation is the more important, he remarks, as a pyelitis generally heals under internal treatment, copious drinking, reclining on the other side, and rinsing out the kidney pelvis through the ureter catheter. The outcome is entirely different with an affection of the kidney parenchyma; spontaneous recovery is possible but exceptional; he reports a case of the kind. A kidney with miliary abscesses requires operative interference after failure of the ordinary medical measures. Nephrotomy is generally sufficient; only when the entire kidney is found studded with abscesses is its removal indicated. In three such cases recently he merely incised the kidney at first but was compelled to remove it later. Two of the patients recovered; the infection was blood-borne in one case and of the ascending type in the other. In the third case the infection was evidently secondary to furunculosis, and both kidneys were evidently involved so that the patient still suffered after removal of one, dying finally from the effects of an abscess in the liver. This case teaches anew the necessity for ascertaining the condition of the second kidney before removing one. Blood-borne infection, Tietze adds, is peculiarly liable to involve both kidneys, although one may be more seriously affected than the other. Ascending infection may also involve both kidneys but as it generally is ushered in by some local process, kinking of the ureter, stenosis, etc., especially during a pregnancy, involvement of one kidney alone is more common.

88. **Conglutination Fixation of Complement Test.**—Hecht has been testing Karvonen's conglutination reaction (described in THE JOURNAL, Dec. 16, 1911, p. 2032). He states that for reasons which he enumerates the method is not applicable for general practice although the reaction is interesting from several points of view.

92. **Auscultation at the Mouth.**—Takata holds the stethoscope just in front of the patient's partly opened mouth and auscults as the patient breathes deeply and slowly. He asserts that the findings in this way are peculiarly instructive, while the patient does not have to undress or exert himself, and can auscult himself in this way, even without the stethoscope.

95. **Operative Treatment of Gastric Crises.**—Franke states that the patient operated on in 1910 by his method is still free from recurrence, and two other patients since have benefited in the same way. The method, he says, is much simpler and easier than section of the posterior spinal nerve-roots for relief of tabetic crises, while the results to date have been equally good or superior to those from rhizotomy. The intercostal nerves are very slowly and gradually pulled or twisted out at the point where the posterior spinal roots emerge. Leriche of Lyons has informed him that in experiments on dogs the intervertebral ganglia were thus extracted, with the nerves, which explains the permanent results attained. He also has thus permanently cured two patients with tabetic gastric crises. Franke says that his first communication on the subject, before the annual meeting of the German Surgical Association in 1910, did not attract the attention which he thinks his method deserves.

97. **Prophylaxis of Diphtheria and Scarlet Fever.**—Westenhoeffer describes the measures which he introduced into a school at Santiago, Chili, to prevent and stamp out transmissible diseases among the school children. The measures require the cooperation of the medical school inspector and the sanitary police, and two years of practical experience have confirmed the practical advantages and the success of the method. It aims to educate the parents and obtain their cooperation; there are nine printed blanks of different colors, for certificates of vaccination, release from quarantine, etc. More power is conferred on the medical school inspector by the method than he has yet obtained elsewhere. An official letter accompanies the article stating the fine results attained and the satisfaction of the authorities with the working out of the system.

Deutsches Archiv für klinische Medizin, Leipsic

CIV, Nos. 5-6, pp. 405-620. Last indexed Dec. 23, 1911, p. 2112

99 Metabolic and Other Findings in a Case of Colon-Chyle Duct Fistula. (Abgang von reinem Chylus mit dem Kot infolge Colon-Chylusfistel.) E. Mayerle.
100 *Alimentary Excess of Sugar in the Blood. (Ueber alimentäre Hyperglykämie.) H. Tachau.
101 Glycosuria from Abnormal Permeability of Kidney for Sugar. (Beitrag zum Studium des Nierendiabetes.) H. Tachau.
102 *Aneurysm of Abdominal Aorta. (Beiträge zur Kenntnis des Bauchaortenaneurysmas.) H. F. M. Weitz.
103 *Improved Technic for Research on the Chemistry of the Stomach. (Zur Frage des Chemismus des Magens. Ein neues Probefrühstuck.) S. Mintz.
104 Action of Digitalis. (Ueber Digitaliswirkung.) E. Edens.
105 The Jugular Pulse. (Ueber die S-Welle im Jugularpuls.) E. Edens and E. Wartensleben.
106 Titration of Gastric Juice. (Bemerkung über Titration von Magensaften.) A. Dorner.
107 Roentgenoscopy of Peristalsis of the Stomach. (Röntgenuntersuchungen über Form und Rhythmus der Magenperistaltik beim Menschen.) A. Schicker.
108 *Nucleus Test for Pancreas Functioning. (Beitrag zur Kernverdauung und eine Vereinfachung der Schmidt'schen Kernprobe zur Erkennung von Pankreasachylie.) T. Kashiwado. (Praktische Verwertbarkeit der Kernprobe für die Diagnose von Pankreaserkrankungen.) A. Schmidt.

100. **Renal Diabetes.**—Tachau reports in detail a case in which the diagnosis wavered between mild diabetes or glycosuria the result of abnormal permeability of the kidneys for sugar. The metabolic findings seemed to indicate the latter, the intermediate metabolism of sugar being apparently normal. The course of the case through years is the only means of finally deciding the question.

102. **Aneurysm of Abdominal Aorta.**—Weitz reports six cases, all with a history of syphilitic infection from one to thirty-six years before. In two cases there was a continuous feeling of oppression in the stomach with occasional violent pains suggesting lead colic or tabetic crises, occurring on effort or spontaneously at night. The aneurysm was always found in the upper part of the aorta. In three cases rupture of the aneurysm proved fatal; one patient succumbed to progressive weakness. Another patient is still living, after nine months of symptoms. The sixth patient first exhibited symptoms nine years ago but they subsided under thorough specific treatment kept up for six years and the patient seems apparently cured; such a favorable course is exceptional. The treatment in this case was absolute bed rest, restricting the intake of both food and fluids (a *Durst- und Hungerkur*), injection of 50 c.c. of a 10 per cent. solution of gelatin every fifth day, and vigorous mercury and potassium iodid medication. He advises continuing the specific treatment until the Wassermann reaction is permanently negative. In other cases of aneurysm, the patients showing permanent improvement were always those in whom the Wassermann reaction had become negative.

103. **A New Test Breakfast.**—Mintz proposes bouillon as an unusually satisfactory substance for a test breakfast, as it is homogeneous, stimulates the glands of the stomach to their maximal functioning, independently of psychic factors, while it permits exact estimation of the absolute quantities and concentration of the gastric juice secreted. He uses the Liebig extract of beef, dissolving 100 gm. in 500 c.c. of boiling distilled water, filtering and sterilizing. This is the stock. For the test he dilutes 5 c.c. of the stock with 100 c.c. water. Just before using he dilutes further with hot water to a total of 475 c.c. and adds 2 gm. of salt. The patient drinks 450 c.c. of the broth thus prepared. 25 c.c. being kept for control. He enumerates a number of advantages presented by this technic and the peculiarly instructive findings with it. Among other things it shows that irruption of bile into the stomach content may occur as an automatic means of counteracting an excess of acid in the stomach content.

108. **The Nucleus Test.**—Kashiwado has simplified and rendered more sensitive Schmidt's nucleus test by using isolated and stained nuclei from the cells of calves' thymus tissue for the test. He reports extensive experimental and clinical research with it. His statements are corroborated by Schmidt who adds the details of thirty-two cases of affections of the pancreas in which the test gave instructive findings. The test gives a positive reaction in diseases of the pancreas with organic changes destroying the entire secretory function. Unless this is entirely lost, the findings are generally negative. With functional disturbances the findings may be transiently positive.

Deutsche medizinische Wochenschrift, Berlin

January 4, XXXVIII, No. 1, pp. 1-48

109 Coronary Arteries and Musculature of Bronchi React Parallel to Toxic Influences. (Ueber toxische Reaktionen der Koronararterien und Bronchien.) J. Pal.
110 *Roentgenotherapy of Leukemia. (Beiträge zur Behandlung der Leukämie mit Röntgenstrahlen.) J. Biermann.
111 *Protection of Skin in Roentgenotherapy by Inducing Anemia with Epinephrin. (Weitere Mitteilungen zur Verwendung der Adrenalinanämie als Hautschutz in der Röntgen- und Radiumtherapie.) K. Reicher and E. Lenz.
112 Bronchoscopic Diagnosis of Syphilis of the Lower Air Passages. (Ueber bronchoskopisch diagnostizierte Tracheobronchial- und Lungensyphilis.) A. Denker.
113 *Immunization Against Trypanosomiasis. (Ein neues Immunisierungsverfahren gegen Trypanosomen-Krankheiten.) C. Schilling.
114 Intravenous Serotherapy Against the Pneumococcus. (Ueber die intravenöse Anwendung des Pneumokokkenserums.) L. Beltz.
115 The "Granula" Tuberculosis Virus. (Zur Frage des granulären Tuberkulosevirus.) R. Bittrolff and K. Momose.
116 *Industrial Skin Diseases. (Ueber die gewerblichen Erkrankungen der Haut.) K. Herxheimer.
117 Causes of Reaction to Salvarsan. (Ueber die Ursachen der Reaktionserscheinungen nach Salvarsaninjektion.) J. Almkvist.
118 Extremely Adhesive Salve. (Unguenta adhaesiva.) W. H. Dreuw.

110. **Roentgenotherapy of Leukemia.**—Biermann gives the details of five cases of leukemia in which roentgenotherapy was applied at the university medical clinic at Heidelberg. In one case the benefit was striking and permanent, the patient, a woman of 37, being still in good health eighteen months afterward; the spleen is of normal size, and the number of leukocytes about 12,500, with no erythroblasts. When treatment was commenced the leukocytes numbered 450,000. Biermann's experience has convinced him that gradual and not very high dosage of the rays is better than trying to accomplish too much in a brief period. The myeloid form responds best to roentgenotherapy, and he declares that physicians should not wait for the leukemia to become severe before instituting treatment with the Roentgen rays. General practitioners should be on the watch for cases suspicious of leukemia, especially when there is a history of tenacious disturbances, sometimes for years, such as a feeling of oppression and tension in the abdomen, occasional vomiting, constipation, lassitude, pains in the sacral region and "rheumatic" pains in the limbs, for all of which no other satisfactory explanation can be discovered. By heeding these symptoms it may prove possible to apply roentgenotherapy in a stage in which it will have actual curative value or at least promote long survival in comparative health.

111. **Electric Epinephrin Preparation of Field for Roentgenotherapy.**—Reicher and Lenz send the epinephrin into the tissues by electric cataphoresis, and state that by this means it is possible to expel the blood from the part for half an hour and so effectually that approximately twice the ordinary dosage of the Roentgen rays can be applied without irritation. The anemic skin absorbs less of the rays and they are able to exert a greater influence on the deeper tissues.

113. **Immunization Against Trypanosomiasis.** — Schilling reports that it is possible to obtain outside of the body an antigen capable of conferring immunity to trypanosome affections, as he has found in his experiments with tartar emetic. Potassium bitartrate can also be used for the purpose. He bleeds infected rats into bouillon containing 2 per cent. sodium citrate, then centrifugates and adds to the pipetted supernatant fluid equal parts of a 1 per 700 bouillon solution of tartarus stibiatus, and centrifugates again. The sediment is used for the inoculations, suspended in a little bouillon. The tartar emetic kills all trypanosomes, even in a 1 per 2,000 solution, in the course of two hours; the shape of the trypanosomes does not seem to be much altered but the nucleus seems to be loosened up. Schilling heralds as an advance full of promise this principle of killing the germs *in vitro* by a chemical agent which leaves the antigen unimpaired in its full efficiency.

116. **Industrial Skin Diseases.**—Herxheimer reviews a broad field in this article, listing seventy-four different industrial means by which chronic eczema is acquired. He emphasizes

the fact that a single injurious agent may induce a number of different affections in different individuals. The predisposition afforded for cancer is also discussed, as well as industrial acne, rosacea, vaccinia in milkers, local infectious processes, such as furuncles in cement workers, ulcerations from glass dust or sand, or ulceration in the nose in workers on chromium salts. In prophylaxis of the eczema he advocates salves and roentgenotherapy, working in gloves or after application of elastic collodion. Tar preparations should be avoided, he says, and frequent washing of the hands; it is better to keep them dry as possible.

Deutsche Zeitschrift für Chirurgie, Leipsic

CXIII, Nos. 1-2, pp. 1-196. Last indexed January 20, p. 232

119 *Pathogenesis of Solitary Cysts in the Bones. (Zur Kenntnis der Pathogenese der solitären Knochencysts.) Fujii.
120 *Pathologic Importance of Rigid Upper Aperture of Thorax. (Zur Lehre von den sogen. Freundschen primären Thoraxanomalien.) M. Sumita.

119. **Cysts in Bones.**—Fujii reports a case in which the cyst had evidently developed in the right fibula on the basis of a giant-celled sarcoma. The patient was a letter carrier of 41. In a second case extravasation of blood inside of a healthy bone led to production of the cyst. This patient was a boy of 11, with other signs of hemophilia. Fujii discusses the various explanations that have been proposed, and tabulates eighteen cases of solitary bone cyst on record in which the entire specimen could be inspected, and twenty-four others in which only a part was examined. On the basis of these forty-seven cases he discusses the symptomatology, macroscopic findings and the classification of such lesions.

120. **Abnormal Rigidity of Upper Chest Walls.**—Sumita discusses the histology at various ages of the normal costal cartilages and of their junction with the ribs, and then reviews the pathology, and the pathogenic importance of abnormal rigidity and progressive degeneration of these parts. The whole study was undertaken to decide the practical importance of Freund's chondrotomy to remedy abnormal conditions in the lung beneath. The article fills 147 pages and a bibliography of 125 articles is appended. The final conclusions restrict materially the indications for Freund's operation for apical tuberculous processes. At the same time this operation is extolled as of extremely beneficial importance for emphysema of the lung. It relieves the subjective symptoms and wards off complications on the part of the heart. The benefit is not, as Freund assumes, from removal of the cause, but the patient benefits by the partial immobilizing effect on the lung.

Monatsschrift für Kinderheilkunde, Leipsic

X, No. 9, pp. 439-498

121 Retention of Chlorids with Exudative Cutaneous Disease. (Chlorretention bei exsudativen Prozessen der Haut.) V. Menschikoff.
122 The Heart Sounds in Infants. (Herztöne kranken und gesunder Säuglinge.) W. Schliep.
123 *Means for Artificial Respiration for Children. (Eine Methode der künstlichen Atmung bei Kindern.) Ssokolow.
124 Salt Fever. (Zur Theorie des Kochsalzfiebers.) M. Katzenellenbogen.
125 Arthritic Diathesis in Children and Uric Acid Excretion. ("Arthritismus" im Kindesalter und Harnsäure-Ausscheidung.) A. Uffenheimer.
126 Reactive New-Growth in Cirrhosis of the Liver. (Zur Frage der reaktiven Neubildungsvorgänge bei Lebercirrhose.) A. Czerny.

123. **Means for Artificially Inducing Respiration in Infants and Young Children.**—Ssokolow places the child on a table with the head hanging down over the edge. Then he lifts up the head, bending it down on the sternum, at the same time as he draws up the legs until the knees touch the region of the sternum. Repeating these movements rhythmically he has been able thus to resuscitate apparently asphyxiated infants and children with never a failure. He explains the mechanical principle involved as that the traction on the chest muscles pulls on the sternum and scapulæ as the head drops backward —this is the phase of inspiration, while expiration is induced as the head is doubled forward on the chest and the abdomen squeezed by the child's knees. Other important factors are the traction on the tongue and larynx and the flux and reflux of blood into the brain, acting on the respiration center both directly and by reflex action. He has found the method particularly useful in asphyxia during or after a tracheotomy operation. Two illustrations show the technic further; he adds that it is harmless for the child; there is no need for letting the child get chilled while it is being applied; it is not fatiguing for the physician, while it has the advantage over the Schultze method of the reflex action from traction on the tongue and larynx. Another advantage is that the head does not have to be held in the hand all the time.

Münchener medizinische Wochenschrift

January 2, LIX, No. 1, pp. 1-64

127 *Operative or Roentgen-Ray Castration? (Operationkastration oder Röntgenkastration.) O. v. Herff.
128 Prophylaxis of Wound Infection. (Zur Frage der Wundinfektion.) W. Zangemeister.
129 Tendovaginitis in the Wrist. (Ueber das Wesen und die Behandlung der stenosierenden Tendovaginitis am Processus styloideus radii.) de Quervain.
130 Gall-Stones in Non-Infected Gall-Bladder. (Der Gallenstein in keimfreier Gallenblase.) B. Riedel.
131 Diagnosis of Diffuse Brain Disease by Puncture. (Histologische Diagnose diffuser Hirnerkrankungen durch Hirnpunktion.) H. Willige and F. Landsberger.
132 Experimental Research on Internal Secretion of the Breasts. (Versuche mit "Mammininum Poehl" betreffend die Funktion der Brustdrüse als innerlich sezernierendes Organ.) L. Adler.
133 Experimental Research on Toxicity of Salvarsan. (Die Toxizität des Salvarsans bei Intravenöser Einverleibung nach Versuchen am Hund und Kaninchen.) M. Kochmann. (Experimentelle Untersuchungen zur Frage nach der neurotoxischen Wirkung des Salvarsans.) K. Beck.
134 Local Application of Salvarsan. (Ueber die lokale Salvarsanbehandlung mit bes. Berücksichtigung der Spirochätenerkrankungen im Bereiche der Mundhöhle.) J. Zilz.
135 Neurorecurrences After Salvarsan. (Eigene Erfahrungen über Abortivkuren mit Kalomel und Salvarsan, sowie über Neurorezidive.) H. Müller.
136 *Respiration Symptom of Aneurysm of the Aorta. R. v. Hoesslin.
137 Treatment of Flat-Foot and of Talipes. (Plattfuss and Klumpfuss.) O. Thilo.
138 Roentgen-Ray Stereoscopy of Stomach and Intestines. (Die Röntgenstereoskopie des Magens und des Darmes.) J. T. Case (Battle Creek, Mich.).
139 Recurrence After Gall-Stone Operations. (Dauererfolge und Rezidive nach Gallensteinoperationen.) L. Arnsperger.

127. **Treatment of Uterine Myoma by Castration.**—Herff does not regard it as established by any means that castration is an effectual mode of treating myomas. He has recently removed a 7-pound myoma from a woman of 72, most of its growth being quite recent. If castration is to be done, he presents arguments in favor of the operative technic, as it is more certain, less tedious, and spares the patients the possible dangers from the use of the *x*-rays.

136. **Respiration Sign of Aneurysm of the Aorta.**—A patient with considerable dyspnea from compression of the trachea by the aneurysm, breathed with a single strained inspiration but expiration proceeded in a series of jerks. This is explained by von Hoesslin as due to the diastolic emptying of the aneurysm with each heart beat, the jerks being synchronous with the pulse, the blood-wave as it passed along each time lowering the pressure within the aneurysm. This jerky diastolic expiration kept up for a few days until death, in the case reported. It is analogous to the staccato respiration described by Hensen, only this occurs during inspiration, and synchronous with the systole.

Therapie der Gegenwart, Berlin

January, LIII, No. 1, pp. 1-48

140 *Extension in Treatment of Arthritis. (Behandlung akuter und subakuter Gelenkentzündungen mittels Extension.) H. Hochhaus.
141 *Otosclerosis. (Ueber die sogen. "Otosklerose.") B. Heine.

140. **Extension in Treatment of Arthritis.**—Hochhaus applies extension according to the Bardenheuer adhesive plaster technic, for acute or subacute arthritis that does not show prompt improvement under the ordinary measures. He has found it a great help in obstinate gonorrheal joint affections, and reports excellent results in ten of his fifteen cases of this kind, satisfactory results in three, while in two other cases passive hyperemia seemed to accomplish more. The stage of swelling and pain seemed in all the cases to have been abbreviated by this extension treatment. In a typical case in a young woman the right knee was the seat of a peculiarly obstinate severe gonorrheal process, and the pain and swelling subsided to a marked extent after immobilization on a splint and extension. The complete rest for the joint is one factor in the cure but

more important is the separation of the joint surfaces; this removes the irritation from friction between them and promotes absorption of the effusion.

141. **Otosclerosis.**—Heine discusses otosclerosis from various standpoints, concluding that as local and internal treatment are both generally powerless to arrest the course of the deafness beyond mitigating symptoms as they arise, the main task is to improve the general condition. A change of air and scene may aid in improving the general condition and this in turn may react on the hearing, while a tendency to constipation, to anemia, chlorosis or neurasthenia may have an unfavorable influence on the process. A dry climate is preferable, of course. The physician's most important task is to combat the patient's depression as he feels his hearing growing less and less, and for this purpose Heine advises training the patient early to read the lips of persons speaking to him, not waiting for this training until the hearing is entirely lost. It is an immense gain if a slightly deaf person is able to supplement his deficient hearing by reading the lips of the speaker, while it is a far more difficult matter for the very deaf to learn the art. Children and women learn to read the lips most readily. Another important point is to watch with extra vigilance over the permeability of the nasal passages; the slightest interference with free breathing through the nose may have a very unfavorable influence on the hearing.

Virchows Archiv, Berlin

December, CCVI, No. 3, pp. 321-474

142 Irruption of Miliary Tubercles Into the Vessels in the Lung. (Einbruch miliärer Tuberkel in die Lungengefässe.) F. Boyman. Commenced in No. 2.
143 Epithelial Giant Cells in the Kidney. (Epitheliale Riesenzellen in der Niere.) W. Wittich.
144 Rare Anatomic Form of Mitral Stenosis. M. Busch.
145 Morbid Findings in Umbilical Cord in Syphilis. (Alterationen des Nabelstranges bei Syphilis.) M. Dominici.
146 Tendency to Snout Formation with Cyclops Deformity. (Rüsselbildung bei Zyklopie.) H. Josephy.
147 Epithelial Goiter. (Weitere Mitteilungen über die epitheliale Struma.) T. Langhans.
148 Primary Parenchymatous Carcinoma of the Liver. (Hepatoma.) K. Yamagiwa.
149 Metastatic Cancer in Central Nervous System. (Zwei Fälle von Metastasenbildung bösartiger Geschwülste in der Leptomeninx.) H. Löbe.
150 *Dry Preservation of Pathologic Specimens. (Zur Frage der Konservierung pathologisch-anatomischer Präparate.) G. Schorr.

150. **Dry Preservation of Anatomic Specimens.**—Schorr fixes the specimens in the Kaiserling formaldehyd mixture, then restores the color of the blood with alcohol, then soaks the specimen for two weeks in a mixture of glycerin, alcohol and sodium chlorate, and then mounts the specimen on a white plate or other dish on which a sheet of glass is cemented to make an air-tight chamber. This method of preparation is simple, cheap, and the specimens are readily handed round for inspection, being much better adapted for this purpose, he declares, than specimens mounted in a fluid, the anatomic details showing up remarkably well. He gives the exact details for the entire process which he says fills the demand for inexpensive dry specimens in nearly the natural colors.

Wiener klinische Wochenschrift

January 4, XXV, No. 1, pp. 1-66

151 *Access to Hypophysis. (Modifikation der Schlofferschen Operation von Tumoren der Hypophyse.) O. Chiari.
152 The Constitution and Glands with an Internal Secretion. (Konstitution und Blutdrüsen.) F. Chvostek.
153 Treatment of Strabismus. (Operative Behandlung des Schielens.) F. Dimmer.
154 *Brain Tumors. (Meine Operationsresultate bei Hirntumoren.) A. von Eiselsberg.
155 Goethe's Doctrine of Colors. (Versuch aus Goethes Farbenlehre und seine Erklärung.) S. Exner.
156 Etiology of Skin Diseases. (Hautkrankheiten.) F. Finger.
157 Asepsis—Antisepsis. A. Fraenkel.
158 Sensory Innervation of the Intestines and Bladder. (Sensible Innervation von Darm und Harnblase.) A. Fröhlich and H. H. Meyer.
159 *Hematuria with Appendicitis. A. von Frisch.
160 Photophobia. (Ueber Lichtscheu.) E. Fuchs.
161 Firearm Wound of the Esophagus. (Fall von Schussverletzung des Oesophagus im Brustteile) J. Hochenegg.
168 Behavior of Transplanted Carcinoma in Mice Rendered Anemic. (Verhalten transplantierter Karzinome in künstlich anämischen Mäusen.) G. Joannovics.
163 Fever Hallucinations from Forensic Standpoint. (Fieberphantasien eines Pneumonikers als Anlass irriger Angaben über stattgehabte Misshandlungen.) A. Kolisko.
164 Unusual Constituents of Mineral Waters. (Ueber die "seltenen Bestandteile" der Heilquellen.) E. Ludwig.
165 Unusual Forms of Acute Leukemia. (Leukosarkomatose und Myeloblastenleukämie.) R. Paltauf.
166 Pediatric Clinic at Vienna. (Die neue Wiener Universitäts-Kinderklinik.) C. von Pirquet.
167 Furunculosis. (Furunkel, Furunkulose und deren Behandlung.) G. Riehl.
168 Should Retained Scraps of the Placenta Be Detached? (Sollen Plazentarreste gelöst werden?) F. Schauta.
169 Bacterial Toxins in Treatment of General Paralysis. (Ueber Behandlung der progressiven Paralyse mit Bakterientoxinen.) Wagner von Jauregg.
170 *Chronic Pancreatitis with Chronic Alcoholism. A. Weichselbaum.
171 *Operations for Recurrence After Hysterectomy for Cancer. (Ueber Rezidivoperationen nach der Exstirpation der karzinomatösen Gebärmutter.) E. Wertheim.

151. **Access to the Hypophysis.**—Chiari reports two cases in which he obtained access to the hypophysis tumor through an incision running from the inner edge of the orbit along the outer margin of the nasal bone down to the maxillary process. The nostril is swabbed with cocain and epinephrin beforehand. The eyeball is easily drawn outward and then the outer wall of the sphenoidal sinus is resected; through this gap the rear part of the nasal septum and the sphenoidal septum is resected, which exposes the hypophysis. The scar resulting is small with the minimum of disfigurement while only a comparatively insignificant part of the framework supporting the nose is removed; the distance from the skin to the sphenoid bone is much shorter than by any other technic, and the operation is completed at a single sitting while the danger of infection of the skull is no greater than by any other extranasal or intranasal method. In the two cases reported, he was impressed with the smooth healing of the parts inside the nose without much scab production. One of his patients is apparently entirely cured and the functional outcome was good in both.

154. **Brain Tumors.**—In this special number of the *Wochenschrift*, commemorating its twenty-fifth anniversary, Eiselsberg reviews his experience with brain tumors, a field still unexplored, he remarks, when the weekly was founded. He has had 100 cases of the kind, and a palliative operation was done in 10 cases while the skull was opened in all the others. In the 43 cases of tumor in the cerebrum it was correctly located in 32 and in 11 of the 22 cerebellum tumors; in 12 cases the tumor was in the cerebello-pontine angle, and in 13 in the hypophysis. Excluding the latter group and the palliative cases, 32 of the remaining 77 patients succumbed to the effects of the operation, operative shock (22), infection (6), pneumonia (3), or embolism (1). In 16 other cases the patients died from early recurrence or the effects of prolapse of brain tissue. This leaves only 29 survivors and 4 of these have been lost track of. Of the remaining 25 patients, 12 survived in good health for a few months to five years after removal of the tumor in the cerebrum, a glioma, endothelioma, angioma or melanosarcoma (1 each of the latter); 4 after removal of a pontine angle tumor, 1 of a cerebellum tumor and 8 patients whose tumors were not removed but the parts were released from pressure by trephining. This latter group includes 2 cerebellum tumors, one of the patients being still free from disturbances eight years after the operation. Paralysis occasionally followed the operation on the brain, affecting one side or one limb, but it subsided later, and in some cases permanently vanished. He remarks that his experience does not compare very favorably with that reported from other clinics, possibly, he adds, because he has reported every case without discrimination or exception. He describes his technic, emphasizing the advantages of preparing the patients for the operation with a course of hexamethylenamin, operating under induced local anemia, eventually introducing small "buried" tampons, operating at two sittings, refraining from drainage or tamponing, and closing the defect in the dura by carefully fitting in a flap of fascia.

159. **Hematuria with Appendicitis.**—Frisch reports from the literature thirteen cases of hematuria with appendicitis; adhesions between the appendix and the ureter were responsible in six cases; in three the inflammatory process had involved the kidney, and in two a toxic nephritis was evidently responsible; in two other cases no explanation for the hematuria could be discovered. In two other cases on record the hematuria was traced to pressure on the kidney or its vessels from

accumulations of feces in the cecum region. Frisch then reports from his own experience a case of hematuria with appendicitis in which the hematuria occurred each time following the attack of colic set up by the appendix, and it subsided each time afterward, the urine becoming promptly normal again, until after the next attack of colic in the appendix region. The appendix was not adherent and there was no stagnation of feces to cause pressure on the kidney. This rapid return to normal each time, he thinks, excludes a toxic process. The urine findings also indicated merely the presence of blood in otherwise normal urine.

170. **Chronic Pancreatitis with Alcoholism.**—Weichselbaum found evidences of chronic pancreatitis constantly in twenty-seven male cadavers with a history of severe chronic alcoholism including fifteen men who had died during delirium tremens; all were free from cirrhosis of the liver. The changes in the pancreas were in the nature of intralobular induration but it was never so severe as when there was concomitant cirrhosis of the liver. The presence of the liver cirrhosis may indicate a severer degree of alcohol poisoning, and it is possible that toxic influences from the liver affection may aid in the injury of the pancreas. The clinical symptoms of the chronic pancreatitis with alcoholism are never so severe as with pancreatitis in which the outlet is obstructed, the digestion of fat and albumin not being materially impaired, but the frequent involvement of the islands of Langerhans is liable to entail symptoms of diabetes.

171. **Operation for Recurrence After Vaginal Hysterectomy for Cancer.**—In the two cases reported by Wertheim the recurrence was on the left side, close to the wall of the pelvis, in the form of a small lump with fibrous adhesions connecting it to the end of the vagina. The cystoscope revealed abnormal functioning of the left ureter, and the catheter could be introduced into the ureter only for a short distance. The women were in good general health and the lumps were fairly movable. Such recurrences generally develop around the ureter, and the first step is to sever the ureter just above, as it is impossible to free it from the cancerous mass without disseminating cancer cells. In his cases it was also necessary to resect a segment of the bladder and implant the stump of the ureter in the bladder above. The bladder was partially paralyzed for a time thereafter and the ureter did not behave quite normally, but the women are otherwise in good health. The ureter walls are peculiarly resistant to cancerous invasion, and in these cases were free from cancer although embedded in the malignant lesion. Wertheim remarks that the more radical the primary operation for cancer, the less favorable the outlook for operative treatment of a following recurrence. When recurrence follows it is generally inoperable from the first symptoms.

Zeitschrift für Geburtshülfe und Gynäkologie, Stuttgart

LXIX, No. 2, pp. 301-552. Last indexed Dec. 2, 1911, p. 1877

172 Improved Technic for Sterilization of the Hands: 10 Per Cent. Carbon Dichlorid—Tincture of Soap. (Ein neuer Seifenspiritus mit hoher Desinfektionskraft.) P. Hussy.
173 The Smooth Muscle in the Ovary. (Ueber die glatte Muskulatur des Eierstockes und deren Verhalten während der Schwangerschaft und bei Myom des Uterus.) J. Wallart.
174 Menstrual Changes in Vessels in Uterine Mucosa. (Gefässveränderungen in der Uterusschleimhaut zur Zeit der Menstruation.) R. Keller.
175 Changes in Total Volume of Blood During Pregnancy and Puerperium. (Ueber Veränderungen der Blutmenge in Schwangerschaft, Geburt und Wochenbett.) H. Fries.
176 The Wassermann Reaction in Obstetrics. (Die Wassermann-Neisser-Bruckesche Reaktion in der Geburtshilfe.) F. Heimann and R. Stern.
177 Cysts in Uterine Cervix. (Cystenbildung in der Cervix Uteri.) M. E. Schubert.
178 Experimental Research on Sterilization of the Hands. (Experimentelle Versuche über Händedesinfektion mit Aceton-Alkohol.) A Häberle.
179 Uterus Tissue for Plastic Operation for Vesicocervical Fistulas. (Die metroplastische Operationsmethode der Blasencervixfisteln.) O. Küstner.
180 *Tuberculosis Plus Cancer in Female Genitals. (Ueber das gleichzeitige Vorkommen von Karzinom und Tuberkulose an den weiblichen Genitalien, insbes. Tube und Uterus.) O. von Franqué.
181 Operative Treatment of Carcinoma of the Uterine Cervix. (Zur operativen Behandlung des Carcinoma colli uteri.) M. Hofmeier.
182 Perforation of Uterus During Curetting. (Ueber Perforation des Uterus beim Curettement.) A. Schultze.

180. **Tuberculosis plus Cancer in Genital Organs.**—In none of the sixteen cases on record is it positive that the cancer preceded the tuberculosis, while in nine cases the pre-existence of the tuberculosis is known. In only one case did the cancer develop in a tuberculous process; in seven cases the two were closely adjacent, and in five some distance apart. In a personal case reported in detail a carcinoma developed in a Fallopian tube on the floor of an old tuberculous lesion, the first case of the kind on record, Franqué believes. The patient was a woman of 38. In a second case the woman, now 40, had had an operation for tuberculous peritonitis seventeen years before, and had been under treatment for tuberculosis of the internal genital organs for some years. When the uterus was removed, the mucosa and glandular epithelium were found in malignant degeneration. In both his cases the carcinoma had evidently developed from several centers, as also in a case of diffuse cancer of the vagina on the basis of old leukoplakia. These old lesions, tuberculous and others, afford a predisposition to cancer which the women might have escaped if their genital organs had been sound. No inherited predisposition was apparent in either of his cases, and he does not think that the presence of a myoma in one case had any special etiologic significance. The experiences related afford another argument in favor of operative treatment of genital tuberculosis.

Zeitschrift für klinische Medizin, Berlin

LXXIV, Nos. 1-2, pp. 1-177. Last indexed Dec. 16, 1911, p. 2035

183 Mixed Leukemia. (Ueber hochgradige akute generalisierte Lymphdrüsenwucherungen mikrolymphozytärer Natur bei chronischer myeloider Leukämie.) E. Frank and S. Isaac.
184 Case of Heart Block from Transverse Dissociation. (Fall von transversale Dissoziation.) D. Pletnew.
185 *Bile Pigment in Blood. (Ueber den Nachweis von Gallenfarbstoff im Blutserum und dessen klinische Bedeutung.) O. Scheel.
186 *Findings in Rheumatic Muscles. (Der Untersuchungsbefund am rheumatisch erkrankten Muskel.) A. Müller.
187 Dependence of Changes in Albumin in Food on Digestive Functioning of the Stomach. (Die Eiweissdissimilationskurve in ihrer Abhängigkeit von der Verdauungsfunktion des Magens.) H. Benedict and N. Roth.
188 Enlarged Spleen with Cirrhosis of the Liver. (Ueber den sogenannten Morbus Banti.) A. Neuberg.
189 *Tetany of the Vegetative Nervous System. (Klinische Studien über Tetanie mit Berücksichtigung des vegetativen Nervensystems.) W. Falta and F. Kahn.

185. **Bile in the Blood.**—Scheel gives a diagram to show the proportionate content of the blood serum in bile pigment in health and in various diseases. He used the Hayem and Gilbert tests for the purpose, applying them to fifty-two patients and sixty healthy persons. The normal range is from 20/20 to 14/20; from this to 6/20 is merely latent cholemia, and above this to 1/20 is actual jaundice. The time before the reaction appears is also instructive. In Bright's disease without stasis, in secondary anemia and in malaria, and with a compensated heart defect, the findings are within normal range.

186. **Rheumatic Muscles.**—Müller's research has shown that the rheumatic injury affects the muscles so that they are unable to relax properly after contracting. The essential feature of a rheumatic muscle therefore is not the lumps in it, but the excessive tonicity from inability of the muscle to relax.

189. **Tetany of the Viscera.**—Falta and Kahn's previous communication on this subject was commented on editorially in THE JOURNAL, Dec. 30, 1911, page 2143. They present evidence to prove that tetany is a much more extensive process than has hitherto been recognized, that it affects the sympathetic and autonomic nervous systems as well as the nerves under control of the will. The essence of tetany is a hyperexcitability of the ganglion cell; it responds with undue readiness to slight excitation, and passes the stimulus along throughout the entire nerve. The periperal nerves are the ones most generally affected, but during the acute phase of tetany the autonomic system is liable to be involved and the intermediate metabolism of albumin is liable to be disturbed. In many cases symptoms of hyperfunctioning of the thyroid become evident during or following close on the acute stage

of tetany. They suggest for a working hypothesis the assumption that the parathyroid hormone in normal conditions serves as a restraining influence on the excitability of the ganglion cells, possibly by promoting the assimilation of calcium. With parathyroid insufficiency, any morbid influences, as from auto-intoxication or stagnation in the gastro-intestinal tract, the ganglion cells become oversensitive. They give a detailed study of twenty-one cases and results of experiments on dogs, with tabulation of the metabolic findings in five cases—the phenomena observed all fitting in well with the above hypothesis.

Zeitschrift für Urologie, Berlin

December, V, No. 12, pp. 961-1056

190 *Case of Gonococcus Sepsis with Recovery. (Fall von allgemeiner Gonokokkeninfektion.) B. N. Cholzow.
191 Nephrectomy with Evacuation of Urine from Remaining Kidney Through Stump of Ureter. (Nephrektomie mit nachfolgender Entleerung des Urins der gesunden Niere durch den Ureterstumpf der Operationswunde.) J. P. Haberern.

190. **Gonococcus Sepsis.**—Cholzow knows of only eight cases of gonococcus septicemia on record in the last ten years, although the cases of gonopyemia, as he calls it, can be counted by the hundreds. In the case reported, the diagnosis was made by bacteriologic examination of the blood after a few days of chill and high fever, pains in the perineal region and anuria for a day or so, and swelling and tenderness in both wrists and right maxillary articulation. The patient was a druggist of 36, and there was a history of syphilis contracted in infancy and gonorrhea at 30. An abscess was found in the prostate and evacuated, and the strength was kept up with saline infusion and an antigonococcus vaccine was injected subcutaneously. Five injections of the vaccine were made before final recovery the fourth week.

Zentralblatt für Chirurgie, Leipsic

January 6, XXXIX, No. 1, pp. 1-40

192 Access to the Hypophysis and Sinus Cavernosus by Suprahyoid Pharyngotomy. (Ein neuer Weg für Eingriffe an der Hypophyse und am Sinus cavernosus.) C. Biehl.
193 Drainage After Intrathoracal Hemorrhage. W. Meyer (New York).
194 Broad Flap from Bladder Utilized to Close Gap in Lower Ureter. (Ureterplastik.) J. E. Schmidt.
195 Chemotherapy of Mouse Tumors. (Ueber experimentell erzeugte Wachstumshemmungen an Mäusetumoren.) E. E. Goldmann.

Zentralblatt für Gynäkologie, Leipsic

January 6, XXXVI, No. 1, pp. 1-32

196 *Intracranial Hemorrhage in the Newly Born. (Ueber die Genese intrakranieller Blutungen bei Neugeborenen.) L. Seitz.
197 *Anaerobic Streptococci in the Vagina in Health. (Vorkommen anaeroben Streptokokken in der Vagina gesunder Frauen und Kinder.) A. Rosowsky.
198 *Intra Partum Modifying the Shape of the Skull of the Child by Moving the Mother's Pelvis. (Das künstliche Modellieren des Kindsschädels durch Bewegungen des weiblichen Beckens.) H. Sellheim.
199 *Improved Technic for Making Vagina from Loop of Ileum. (Bildung einer künstlichen Vagina.) W. Stoeckel.
200 Pituitary Extract as Oxytocic. (Pituitrinwirkung in 50 geburtshilflichen Fällen.) O. Fischer.

196. **Intracranial Hemorrhage in the Newly Born.**—Seitz has encountered several cases of intracranial hemorrhage for which laceration of the tentorium was evidently responsible, to which occurrence Beneke has recently called attention. But he describes a number of other cases in which the hemorrhage occurred at other points and the tentorium was intact or could not be incriminated in the bleeding. The findings are peculiarly instructive when the skull is frozen. When there are a number of minute extravasations of blood around the medulla oblongata, there may be no symptoms for several days and then sudden cyanosis and dyspnea develop and the child succumbs in a few days at most. The cases of tardy asphyxia in newly-born infants are generally referable to these minute hemorrhages when no other cause is apparent.

Still more important for the occurrence of the hemorrhages is venous congestion; Paul found retinal hemorrhage in 50 per cent. of the infants born from a contracted pelvis; in 40 per cent. of the prematurely born, and in 20 per cent. with normal delivery and a medium-sized child, among 200 newly-born infants he examined in 1900. Others have reported similar findings, and traces of hemorrhage in other organs, the liver, adrenals and serous membranes are common in children born asphyxiated. On the other hand, Seitz warns, laceration of the tentorium does not inevitably imply hemorrhage.

197. **Anærobic Streptococci in the Vagina in Health.**—Rosowsky found anærobic streptococci common in the vaginas of healthy women and girls. They evidently lead a saprophytic existence there until conditions develop which permit them to exert virulent action.

198. **Shaping from Without the Skull of the Fetus.**—Sellheim states that the pelvic inlet spreads when the woman is placed with the hips at the edge of a table during labor, the legs hanging down. This permits the entrance of the child's skull into the inlet and if the woman is then laid on her back or she partly sits up, pressure is exerted on the fetal skull, modeling it in such a way as to adapt it better for passage through the birth channel. Continued, repeated changing of the mother's position in this way—*Uebergehen von der Hängelage zur Rückenlage oder Steissrückenlage*—will, unless the disproportion is too great between the diameter of the passage and of the child's head, result in adapting its shape so that it can pass readily outward.

199. **Artificial Vagina.**—Stoeckel did not obtain satisfactory results in a case in which he made an artificial vagina out of flaps twisted around from the peritoneum. The passage gradually grew together as the grafts shriveled and contracted. He was much more successful in another case in which he cut out a segment of the ileum, leaving its mesentery intact and uniting the stumps of the intestine above it. A silk thread was passed around the center of the resected segment of bowel, and with this thread the center was drawn out in a V to the external opening of the passage made for the new vagina, where it was sutured, the two ends closed above but left separate. The tip of the V was sutured to the skin, and then cut across, leaving an artificial vagina with a septum down the middle. This gradually shriveled away, leaving the vagina spacious and with no danger of contracting. Before dismissing the patient, however, he warned her most insistently that the nature of the walls of the new vagina was such that she must strictly avoid any disinfectant irrigation, refraining in particular from solutions of mercuric chlorid, lysol or phenol, as serious danger might result from them. She was also given a written admonition to inform her physician of the operation in case she came into a surgeon's hands again, and urge him to communicate with the clinic where the operation was done. Before attempting the operation, Stoeckel had injected camphorated oil as a preventive of peritonitis, and was much pleased with the benefit therefrom. Although the peritoneum was much soiled with colon bacilli during the resection of the bowel, and the superficial suture suppurated a little, there was no trace of peritonitis. He states that in the eight similar cases of the kind on record, there was no evidence of a tendency to thrombosis of the mesenteric vessels. On the whole, he thinks this "small intestine vagina" by far the best technic to date.

Zentralblatt für innere Medizin, Leipsic

January 6, XXXIII, No. 1, pp. 1-28

201 *Sterilization of Intestines by Insufflation of Oxygen Into the Duodenum. (Darmdesinfektion durch Sauerstoffinsufflation in das Duodenum.) A. Schmidt.

201. **Sterilization of the Intestines by Insufflation of Oxygen.**—Schmidt introduces the oxygen through a duodenal tube, sending a current of oxygen slowly through the tube after it has once passed the pylorus. The oxygen does not seem to pass the ileocecal valve, unless introduced under considerable pressure. He thus introduces from two to four liters of oxygen. An hour or so afterward the gas passes out through the anus. The therapeutic effect is surprisingly good. Pathologic fermentation is arrested so that the stool is speedily freed from granulose-containing microbes. The insufflation has to be repeated twice a day at first as the effect is not lasting until the intestinal flora has become transformed under the influence of the oxygen, which soon occurs. He is testing this new method of treatment on a large scale, as he thinks it has a promising future in the treatment of intestinal affections. [Schmidt has assumed editorial charge of the

Zentralblatt für innere Medizin, as Unverricht now retires after serving as editor for eighteen years.]

Gazzetta degli Ospedali e delle Cliniche, Milan

January 2, XXXIII, No. 1, pp. 1-8

202 Efficacy of Serotherapy in Malta Fever: Three Cases. (La siero-terapia della febbre mediterranea. Nuovi risultati positivi.) A. Balduzzi.

January 4, No. 2, pp. 9-16

203 Bacteriologic Research on Psoriasis. (Contributo alla natura bacteriologica della psoriasi.) F. G. Carientini.

Policlinico, Rome

January 7, XIX, No. 2, pp. 41-76

204 Pathology of Rebellious Diarrhea. (La patologia di alcune diarree ostinate.) P. Alessandrini.

Surgical Section, No. 12, pp. 529-572

205 *Vein Anesthesia. (Dell' anestesia regionale endovasale.) F. Nassetti. Commenced in No. 11.

206 *Alcohol Injections for Trifacial Neuralgia. (Contributo alla cura della nevralgia grave del trigemino.) F. Vivenza.

Medical Section, No. 12, pp. 525-568

207 Influence of First Products of Digestion on the Functioning of the Nervous and Muscular Systems. (Influenza dei primi prodotti della digestione sulla funzionalita neuro-muscolare in rapporto ai diversi tipi di alimentazione e alla diverse condizioni di funzionalita gastrica.) C. Boeri and G. Iafolla.

208 No Apparent Influence on Metabolic Findings from Presence of Anguillula Intestinalis. (Studio dell' anguillulosi intestinale.) E. Giani and T. Impo.

209 *Effects of Fruit Juices on the Metabolism. (Contributo allo studio degli effetti che esercitano alcuni succhi vegetali sul ricambio materiale.) T. Laurenti.

205. **Vein Anesthesia.**—Nassetti injected various anesthetics in different concentrations and examined the histologic effect on the blood-vessels and tissues and the action on inflammatory processes and on the germs involved. The technic was that introduced by Bier for vein anesthesia. No symptoms of intoxication were noticed in the experiments on animals not even when the ordinarily fatal dose was injected; no acute intoxication followed when the constricting band was removed. There does not seem to be any danger of embolism from the air that enters the vessels in the region of the dammed circulation. The injected fluid does not diffuse regularly when the circulation is dammed over the middle part of the limb; the best results are obtained when the entire limb is thus anesthetized or the hands or feet alone. For this, however, he found it better to inject the anesthestic into an artery. In general the vein technic is more practical. He thinks that the method is destined to prove very useful in cases contraindicating general anesthesia, although the technic is comparatively complicated. It was described in THE JOURNAL May 1, 1909, p. 1466.

206. **Treatment of Severe Trifacial Neuralgia.**—Vivenza's patient was a woman of 66 who had epileptiform neuralgia of the trigeminus, recurring after resection of the second and third divisions and again after gasserectomy, but the neuralgia was finally conquered by deep injection of alcohol. The removal of the Gasserian ganglion was followed by transient delirium and disturbances in the right eye which persisted permanently, slight exophthalmos, no reaction of the pupil to light, and vision almost entirely lost from atrophy of the retina. These changes were found unmodified when the neuralgia recurred two years afterwards. The cornea was apparently intact. He thinks there is no doubt that these trophic disturbances in the eyeball were the result of the destruction of the Gasserian ganglion.

209. **Influence of Fruit Juices on the Metabolism.**—Laurenti did not find that the fruit juices had any special influence on the amount of urine or its specific gravity, or on the total ammonia output, except a slight influence in these respects from lemon juice, but he found that the total excretion of nitrogen was increased in nearly every instance, while the excretion of uric acid was considerably increased in every case, both at the time of the experiments and later. This influence on the part of the fruit juices did not seem to be directly proportional to their acidity.

Ugeskrift for Læger, Copenhagen

January 4, LXXIV, No. 1, pp. 1-48

210 Indiscriminate Sale of Firearms Should Be Prohibited. (Vaadeskud.) H. Maag.

Revista de Medicina y Cirugia, Havana

January 10, XVII, No. 1, pp. 1-34

211 Color Test for Indican in the Urine. (Nuevo indigotimetro.) L. Piasencia.

212 Isolation and House-to-House Inspection in Prophylaxis of Yellow Fever and Cholera. (Inspeccion de febriles no-inmunes a la fiebre amarilla. Inspeccion domiciliaria de pasajeros del Mediterraneo.) A. Cueto.

213 City Mud. (Moderna Lutecia.) L. M. Cowley.

214 The Sugar-Bowl in Restaurants. (El azucar en los cafés y la higiene.) F. Planzola.

Books Received

Books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for review in the interests of our readers and as space permits.

NERVOUS AND MENTAL DISEASES. Edited by Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Policlinic, and Peter Bassoe, M.D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College. The Practical Medicine Series. Cloth. Price, $1.25. Pp. 245. Chicago: The Year-Book Publishers, 180 North Dearborn Street, 1911.

HERZMISSBILDUNGEN. Ein Atlas angeborener Herzfehler in Querschnitten mit besonderer Berücksichtigung des Atrioventrikularsystems. Von J. G. Mönckeberg, A. O. Professor an der Universität Giessen. Paper. Price, 30 marks. 114 illustrations. Jena: Gustav Fischer, 1912.

SKIN AND VENEREAL DISEASES AND MISCELLANEOUS TOPICS. Edited by W. L. Baum, M.D., and Harold N. Moyer, M.D. The Practical Medicine Series. Cloth. Price, $1.25. Pp. 239. Chicago: The Year-Book Publishers, 180 North Dearborn Street, 1911.

MUNICIPAL ADVANCE: Extracts from the Papers on Various Municipal Services, read at the First International Municipal Congress and Exposition, Chicago, September, 1911. Paper. Chicago Association of Commerce, 22 West Jackson Boulevard.

MICROSCOPY AND THE MICROSCOPIC EXAMINATION OF DRUGS. By Charles E. Gabel, B.S., Ph.D., Microscopic Food and Drug Analyst, Iowa State Dairy and Food Commission. Cloth. Price, $1. Pp. 114. Des Moines, Iowa: C. E. Gabel, 1912.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Edited by Archibald MacLaren, M.D. Volume 29. Cloth. Pp. 496. Philadelphia: William J. Dorman, 701 Arch Street, 1911.

TRANSACTIONS OF THE THIRTY-THIRD ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION. Cloth. Pp. 315. New York: Published by the Association, 1911.

EXERCISE AND HEALTH. By Dr. Woods Hutchinson. Outing Handbooks. Cloth. Price, $0.70. Pp. 156. New York: Outing Publishing Company, 1911.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH. History, Organization and Equipment. Paper. 1911. New York, 66th and Avenue A.

WE AND OUR CHILDREN. By Woods Hutchinson, A.M., M.D. Cloth. Price, $1.20. Pp. 371. New York: Doubleday, Page & Co., 1911.

THE MATING OF THE UNFIT—A STUDY IN EUGENICS. By W. J. Conklin, A.M., M.D., Dayton, Ohio. Paper. Pp. 22.

New Patents

Patents of Interest to Physicians

1,004,369 Syringe. Antonino Cioli, Cincinnati.
1,004,460 Therapeutic lamp. Myron W. Newton, Battle Creek, Mich.
1,004,192 Cooling device for treating fever cases. John T. Phelan, Marshall, Mo.
1,004,300 Massage apparatus. Frank Pope, Kankakee, Ill.
1,004,303 Tablet-making machine. Carl M. Rost, Dresden, Germany.
1,004,482 Artificial hand. Jouel Shakelford and T. Alexander, Ashland, Ky.
1,004,209 Mixing agitator. Burt E. Shattuck, Boston.
1,004,103 Medical syringe. John P. Tacey, Detroit.
1,004,499 Extract of ergot. Rudolf Tambach, Ludwigshafen-on-the-Rhine, Germany.
1,005,024 Massage implement. Alvah A. Griner, Chicago.
1,005,035 Tachometer. Max Hoeft, Berlin, Germany.
1,005,043 Truss. James R. Knox, Richmond, Va.
1,004,899 Crutch. Parsons W. Buchanan, Missoula, Mont.
1,005,076-7 Bacterial product. Warner Schultz, Charlottenburg, Germany.
1,005,137 Medicament and producing the same. Albert D. Barr, Batesville, Ark.
1,005,254 Artificial limb. William H. Manning, Malden, Mass.
1,005,319 Electric massage vibrator. Charles C. Ruprecht, Cleveland.
1,005,356 Syringe. Judson R. Swift, New York.
1,006,341 Medical applicator. Ralph W. Ammons, Los Angeles.
1,006,052 Surgical instrument. James A. Boffin, Chicago.
1,005,816 Portable breathing apparatus. Alexander B. Drager, Lubeck, Germany.
1,005,978 Truss. William Jones, Denver.
1,006,115 Physician's account-book. Leroy Metzgar, Fremont, Ohio.
1,006,415 Electric garment. Arthur C. Stubling and F. C. Gibson, Portland, Ore.